OER K–5 Math

EDITION 1

ENGLISH

Grade 1
Module 6

PLACE VALUE, COMPARISON, UNDERSTANDING INCOME WITH ADDITION AND SUBTRACTION TO 100

TEACHER EDITION

Teacher Edition

K–5 Math Grade 1 Module 6

PLACE VALUE, COMPARISON, UNDERSTANDING INCOME WITH ADDITION AND SUBTRACTION TO 100

Acknowledgment

Thank you to all the Texas educators and stakeholders who supported the review process and provided feedback. These materials are the result of the work of numerous individuals, and we are deeply grateful for their contributions.

Notice

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Grade 1 • Module 6

Place Value, Comparison, Understanding Income with Addition and Subtraction to 100

OVERVIEW

In Topic A, students grapple with comparative word problem types (**1.3B, 1.5D**). While students solved some comparative problem types during Module 3 and within the Application Problems in Module 5, this is their first opportunity to name these types of problems and learn to represent comparisons using strip diagrams with two strips.

Students extend their understanding of and skill with tens and ones in Topic B. For example, they mentally find 10 more, 10 less, 1 more, and 1 less of a number up to 120 (**1.5C**) and compare numbers to 100 using the symbols >, =, and < (**1.2G**). They then count and write numbers to 120 (**1.2C**) using both standard numerals and unit form. Students compose and decompose numbers within 120 in more than one way using both concrete and pictorial representations (**1.2B**). Working with numbers up to 120, they then generate numbers greater than or less than given numbers (**1.2D**), use place value to compare whole numbers using comparative language (**1.2E**), and order whole numbers using place value and open number lines (**1.2F**). Last, students use concrete models to determine the sum of a multiple of 10 and a one-digit number with sums up to 99 (**1.3A**).

In Topic C, students are reintroduced to nickels and quarters (**1.4A**), which were first introduced in Kindergarten. Students have already used pennies and dimes in the context of their work with numbers to 40 in Module 4. Students use their knowledge of tens and ones to explore decompositions of the values of coins. For example, they might represent 25 cents using 1 quarter, 25 pennies, 2 dimes and 1 nickel, or 1 dime and 15 pennies. Students learn to use the cent symbol as they count and record the value of coins (**1.4B**). Additionally, students use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and dimes (**1.4C**).

The focus of Topic D is personal financial literacy (**1.9**). Students explore income and gifts, spending and saving, needs and wants, and charitable giving. They continue their work of adding and subtracting within 20 in the context of financial literacy.

Topic E includes the more challenging *compare with bigger or smaller unknown* word problem types, in which *more* or *less* suggest the incorrect operation (**1.3B, 1.5D**), thus giving a context for more in-depth discussions and critiques. On the final day of this topic, students work with varied problem types, sharing and explaining their strategies and reasoning. Peers ask one another questions and defend their choices. The End-of-Module Assessment follows Topic E.

The module and year close with Topic F, in which students celebrate their year of learning with fun fluency festivities that also equip them with games they can use to maintain their fluency.

Collaboratively Troubleshooting Student Misconceptions

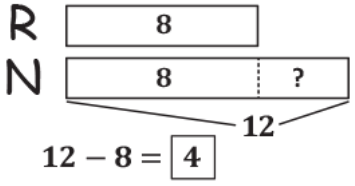
It is common for students to make mistakes as they build their understanding of new or difficult concepts. As noted in the Program and Implementation Guide, collaborative troubleshooting is a routine to help teachers address students' misconceptions. The three steps to collaborative troubleshooting are

(1) surface student thinking;
(2) validate what the student did right; and
(3) bridge to a better understanding.

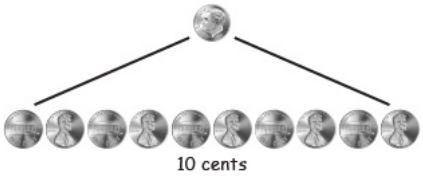
The following table presents teachers with guidance on how to collaboratively troubleshoot misconceptions with students. The first three columns of the table outline misconceptions that commonly arise in this module, reasons why students may have the misconceptions, and associated TEKS. Teachers can use this information to help them decide which questions to ask students to surface thinking and to validate what the students understood or did correctly.

The last column of the table provides instructional strategies and sample guided questions that can support students as they build on what they already know and bridge to a better understanding.

Note: Teachers can also refer to the sample teacher–student dialogue in the "Collaboratively Troubleshooting Student Misconceptions" section of the Grade 1 Course Guide for additional guidance on implementing the three-step routine.

Topic	TEKS	Student Misconception	How to Bridge to a Better Understanding
Topics A and E	1.3B	Students look for the numbers in a comparison problem and apply "more" and "less" as key words to select the operation, instead of understanding the context of the problem. (e.g., "Rose wrote 8 letters. Nikil wrote 12 letters. How many more letters did Nikil write than Rose? I see **more** in the problem, so I will add 8 and 12.")	Notice how students use linking cube sticks and strip diagrams to model comparison problem situations before choosing an operation. When students clearly represent problem situations so that the difference between the quantities is visible, they can better identify the parts, total, and unknown element in the situation. Help students identify the parts that have the same value in both quantities and interpret the difference as either the extra part in one group (as shown below) or the part needed to make the two groups equal. 

Topic	TEKS	Student Misconception	How to Bridge to a Better Understanding
Topic B	1.5C	Students are uncertain how to represent 10 more than a number when there is a nine in the tens place (e.g., 10 more than 91) or 10 less than a number with a zero in the tens place (e.g., 10 less than 101).	Have students use linking cubes or quick tens and ones to show the addition of 10 more. Demonstrate the bundling of 10 tens into a new unit of 1 hundred. Repeat to show 10 less, this time unbundling a unit of 1 hundred into 10 tens so 1 ten can be subtracted. Have students record the digits on a place value chart as they repeatedly determine 10 more or 10 less of a given number. Ten More Pattern Tens | Ones 6 | 1 7 | 1 8 | 1 9 | 1 10 | 1 11 | 1 Ask questions such as: ▪ What happens to the digit in the tens place when we add a ten? Take away a ten? ▪ Why does the digit in the tens place change while the digit in the ones place stays the same? ▪ What is another way to say 10 tens 1? What is another way to say 11 tens 1?

Topic	TEKS	Student Misconception	How to Bridge to a Better Understanding
Topic C		Students think the size of a coin corresponds with its value (e.g, "Nickels are bigger than dimes, so they are worth more.").	Notice how making connections between coin values and place value units can help students develop a deeper understanding of non-proportional models. Use pennies to show the correlation between nickels and dimes and their values. Have students count the coins in unit form (1 cent, 2 cents, 3, cents …) to see that values are equal despite the differences in size and appearance of coins.  10 cents 5 cents
Topic D	1.9B	Students are unable to distinguish between wants and needs (e.g., "I love candy bars, so I need them.").	Acknowledge that some wants are things that a person could live without, while other things would be challenging to live without. Use real world examples to help students consider what they can and cannot live without.

Focus Grade Level Standards

Number and Operations

The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:

1.2B use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones;

1.2C use objects, pictures, and expanded and standard forms to represent numbers up to 120;

1.2D generate a number that is greater than or less than a given whole number up to 120;

1.2E use place value to compare whole numbers up to 120 using comparative language;

1.2F order whole numbers up to 120 using place value and open number lines;

1.2G represent the comparison of two numbers to 100 using the symbols >, <, or =.

Number and Operations

The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

1.3A use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99;

1.3B use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] − 3;

1.3D apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.

Number and Operations

The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:

1.4A identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them;

1.4B write a number with the cent symbol to describe the value of a coin;

1.4C use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.

Algebraic Reasoning

The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

1.5A recite numbers forward and backward from any given number between 1 and 120;

1.5B skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set;

1.5C use relationships to determine the number that is 10 more and 10 less than a given number up to 120;

1.5D represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.

Personal Financial Literacy

The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:

1.9A define money earned as income;

1.9B identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs;

1.9C distinguish between spending and saving;

1.9D consider charitable giving.

Foundational Standards

The student is expected to:

K.2F generate a number that is one more than or one less than another number up to at least 20;

K.2I compose and decompose numbers up to 10 with objects and pictures;

K.3B solve word problems using objects and drawings to find sums up to 10 and differences within 10;

K.3C explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.

TEKS Mathematical Process Standards

The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

1.1A apply mathematics to problems arising in everyday life, society, and the workplace;

1.1B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;

1.1C select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;

1.1D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;

1.1G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Overview of Module Topics and Lesson Objectives

TEKS	ELPS		Topics and Objectives	Days
1.3B **1.5D**	1.E 2.I 4.A 4.E 4.I 4.J 4.K 5.G	A	**Comparison Word Problems** Lesson 1: Solve *compare with difference unknown* problem types. Lesson 2: Solve *compare with bigger or smaller unknown* problem types.	2
1.2B **1.2C** **1.2D** **1.2E** **1.2F** **1.2G** **1.3A** **1.5A** **1.5B** **1.5C**	1.C 2.C 2.E 2.I 3.C 3.E 3.G 4.B 4.C	B	**Numbers to 120** Lesson 3: Use the place value chart to record and name tens and ones within a two-digit number up to 100. Lesson 4: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones. Lesson 5: Count and write numbers to 120. Use Hide Zero® cards to relate numbers 0 to 20 to 100 to 120. Lesson 6: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. Lesson 7: Use objects, pictures, and expanded and standard forms to represent numbers up to 120. Lesson 8: Represent up to 120 objects with a written numeral. Lesson 9: Generate a number that is greater than or less than a given whole number up to 120. Lesson 10: Use place value to compare whole numbers up to 120 using comparative language. Lesson 11: Order whole numbers up to 120 using place value and open number lines. Lesson 12: Identify 10 more, 10 less, 1 more, and 1 less than any number within 120. Lesson 13: Use the symbols > , = , and < to compare numbers to 100. Lesson 14: Use concrete models to determine the sum of a multiple of 10 and a one-digit number in sums up to 99.	12
			Mid-Module Assessment Task: Topics A–B	2

TEKS	ELPS		Topics and Objectives	Days
1.4A **1.4B** **1.4C** **1.5B**	1.A 1.F 2.E 2.I 3.E 3.H 3.J 4.B 5.B	C	**Coins and Their Values** Lesson 15: Skip-count by twos to determine the total number of objects up to 120 in a set. Lesson 16: Skip-count by fives to determine the total number of objects up to 120 in a set. Lesson 17: Skip-count by tens to determine the total number of objects up to 120 in a set. Lesson 18: Identify pennies, nickels, and dimes by their image, name, or value. Decompose the values of nickels and dimes using pennies and nickels. Recognize and write the cent symbol (¢). Lesson 19: Identify quarters by their image, name, or value. Decompose the value of a quarter using pennies, nickels, and dimes. Lesson 20: Identify varied coins by their image, name, or value. Add one cent to the value of any coin. Lesson 21: Count on using pennies from any single coin. Lesson 22: Use dimes and pennies as representations of numbers to 120. Lesson 23: Determine the value of a collection of coins. Lesson 24: Determine the value of a collection of coins.	10
1.9A **1.9B** **1.9C** **1.9D**	2.C 2.E 3.H 5.B	D	**Income and Responsible Spending** Lesson 25: Understand spending and saving income. Lesson 26: Understand the difference between wants and needs. Lesson 27: Consider charitable giving as an option for spending money.	3
1.3B **1.5D**	1.C 2.I 3.E 4.A 4.E 4.F 4.I 4.J 4.K 5.G	E	**Varied Problem Types Within 20** Lesson 28: Solve compare with bigger or smaller unknown problem types. Lesson 29: Solve compare with bigger or smaller unknown problem types. Lesson 30: Share and critique strategies for solving problems of varied types.	3
			End-of-Module Assessment Task: Topics A–E	2

TEKS	ELPS	Topics and Objectives		Days
1.3D	1.E 3.G 4.B	F	**Culminating Experiences** Lesson 31: Celebrate progress in fluency with adding and subtracting within 10 (and 20). Organize engaging summer practice.	1
Total Number of Instructional Days				**35**

Terminology

A Spanish cognate is included when the term has a similar meaning and spelling in English. Not every term in this module has a Spanish cognate.

New or Recently Introduced Terms

- **Dime**: a coin worth 10 cents

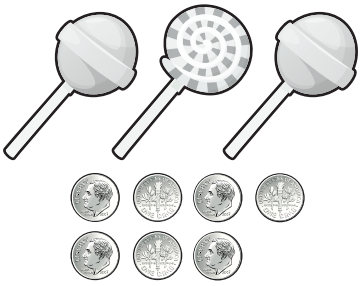
- **Nickel**: a coin worth 5 cents

- **Penny**: a coin worth 1 cent

- **Quarter**: a coin worth 25 cents

Familiar Terms and Symbols[1]

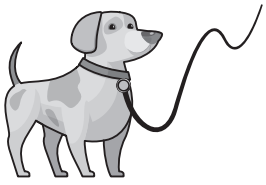
- **Less than**: <
- **Greater than**: >
- **Equal to** (*Igual*): =
- **Earn**: to get money from doing a job or selling something



I earn money selling lollipops.

- **Gift**: something that is given, not earned

- **Income**: money people earn from doing work



She walked the dog and earned 6 quarters as income.

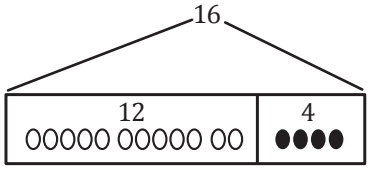
[1]These are terms and symbols students have seen previously.

- **Needs**: things that someone must have to stay alive

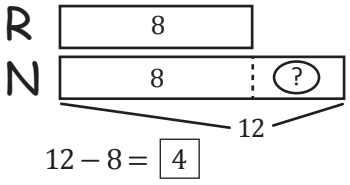
- **Wants**: things that are not needed in order to stay alive, but are wished for

Suggested Tools and Representations

- Open Number line
- 100-bead Rekenrek
- Strip diagram
- Double Strip diagram



Strip Diagram



Double Strip Diagram

Topic A

Comparison Word Problems

1.3B, 1.5D

Focus Standards:		1.3B	Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] − 3.
		1.5D	Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.
Instructional Days:		2	
Coherence	**-Links from:**	G1–M3	Ordering and Comparing Length Measurements as Numbers
		G1–M4	Place Value, Comparison, Addition and Subtraction to 40
	-Links to:	G2–M7	Problem Solving with Length, Money, and Data

Topic A of Module 6 opens with students exploring one of the most challenging problem types for their grade level, comparison word problems (**1.3B, 1.5D**). Students were informally introduced to the problem type in Module 3 as they analyzed data and compared measurements. During Module 5, students worked with comparison contexts through Application Problems. It is with this background that teachers can make informed choices during Module 6 to support students in recognizing and solving comparison word problems.

In Lesson 1, students work with *compare with difference unknown* problem types using double strip diagrams. They then carry their understanding of double strip diagrams into Lesson 2 to tackle *compare with bigger or smaller unknown* problem types. Throughout the module, students continue to practice these problem types as they solve Application Problems in the topics that follow.

A Teaching Sequence Toward Proficiency in Comparison Word Problems

Objective 1: **Solve *compare with difference unknown* problem types. (Lesson 1)**

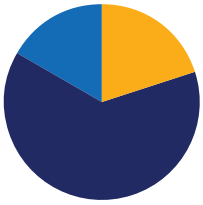
Objective 2: **Solve *compare with bigger or smaller unknown* problem types. (Lesson 2)**

Lesson 1

Objective: Solve compare with *difference unknown* problem types.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(38 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



NOTE ON FLUENCY:

Throughout the module, teachers are encouraged to make appropriate adjustments to fluency activities to account for varying student needs.

Fluency Practice (12 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Number Bond Addition and Subtraction **1.3D** (5 minutes)
- Happy Counting **1.5A, 1.5B** (2 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets

Note: Give the appropriate Practice Set to each student. Students who completed all questions correctly on their most recent Practice Set should be given the next level of difficulty. All other students should try to improve their scores on their current levels. Fluency Differentiated Practice Sets are used throughout this module.

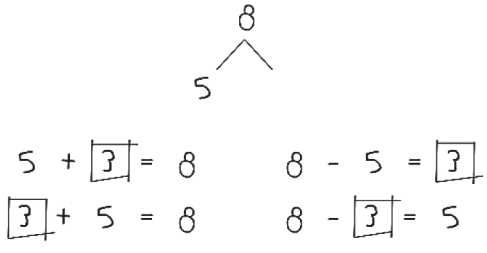
Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Number Bond Addition and Subtraction (5 minutes)

Materials: (S) Personal white board, die per pair

Note: Practice with missing addends and subtraction helps prepare students to solve comparison problems in today's Concept Development.

- Assign partners of equal ability.
- Allow partners to choose a number for their whole (within 10) and roll the die to determine one of the parts.



- Both students write two addition and two subtraction sentences with a box representing the unknown number in each equation and solve for the missing number.
- Students exchange boards and check each other's work.

Happy Counting (2 minutes)

Note: In this module, students add and subtract within 100 and extend their counting and number writing skills to 120. Give students practice counting by ones and tens within 100. When Happy Counting by ones, spend more time changing directions where changes in tens occur, which is typically more challenging.

Happy Count by ones the regular way and the Say Ten way between 60 and 100. Then, Happy Count by tens, starting at a number with some ones (e.g., 78).

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Students who need more proficiency practice, including some emergent bilingual students, will benefit from choral counting activities. Counting chorally reinforces the learners understanding of the patterns of numbers.

T:

T/S: 97 96 (pause) 97 98 (pause) 99 100 99 100 (etc.)

Concept Development (38 minutes)

Materials: (T) 4 ten-sticks, 2 charts with today's story problems (S) Personal math toolkit with 4 ten-sticks, personal white board

Note: Prepare two charts, one with the first story problem about Rose and another with the second story problem about Rose and Nikil. Save the second chart, with the solution, for tomorrow's lesson. Today's lesson objective is addressing word problems. Therefore, there is no separate Application Problem.

Gather students in the meeting area with their materials.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students may find it helpful to use linking cubes to represent the problems. Students can use different color linking cubes for each part being represented and then draw the strip diagrams to match their concrete representations.

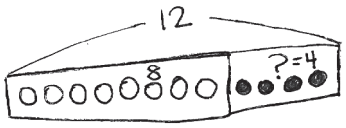
Problem 1: Model a *change unknown* problem with numerals within the strip rather than dots.

T: (Post the chart with the story problem.) Let's read this story problem together.

T/S: Rose wrote 8 letters to her friends. Her goal is to write 12 letters. How many more letters does she need to write to meet her goal?

T: Use a strip diagram to solve how many more letters Rose needs to write. You may also use your linking cubes to help draw and solve.

S: (Solve as the teacher circulates and notices various strategies.)



T: (Choose a student who used a strip diagram to solve. As the student shares, draw the strip diagram on the chart paper.)

S: I drew a rectangle around 8 circles to show how many letters Rose already wrote. Then, I drew a rectangle with a question mark because we need to find out how many more letters she needs to write. Then, I put arms from the first part to the end of the second part because I knew that she wants to write 12 letters. 8 + 4 = 12, so the answer is 4 letters.

T: Great. (Show a 12-stick of linking cubes made of 8 red and 4 yellow cubes.) I made a model of this story using linking cubes. Watch me as I draw my strip diagram only using numbers. Read the first sentence of the story problem.

S: Rose wrote 8 letters to her friends.

T: (Draw a strip, and label it *R*.) This represents the letters Rose wrote. What number should I write inside? (Point to the linking cubes.)

S: 8.

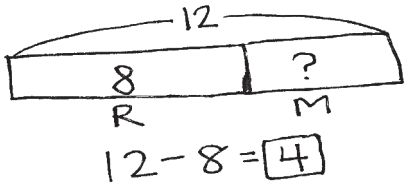
T: (Write 8 inside the strip.) Read the next sentence.

S: Her goal is to write 12 letters.

T: Is that a part of how many letters she wants to write, or is it the total letters she wants to write?

S: The total.

T: So, that means there are some more letters Rose needs to write. We just don't know how many more yet. (Draw another part, write in a question mark, and label it *M* as shown to the right. Point to the additional part of the linking cubes.)



T: These two parts (point to each) make up the total of how many letters?

S: 12 letters.

T: (Draw the arms with 12, and then hold the linking cube stick at both ends, mimicking the arms drawn in the diagram.) What addition sentence helps find the missing part?

S: 8 + ___ = 12.

T: What is the subtraction number sentence to find the missing part?

S: 12 – 8 = 4.

T: How many more letters does Rose need to write?

S: 4 letters.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

To connect students' use of linking cubes to model the problem with the strip diagram, write the numbers for each part on stickers, and adhere the stickers to each part while drawing the strip diagram. A sticker with a question mark can be used to represent the unknown number.

Problem 2: Model a *compare with difference unknown* problem.

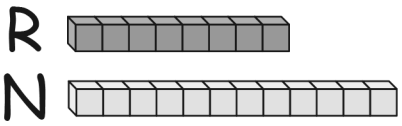
T: (Post the second chart with the next story problem.) Let's read another story problem together.

T/S: Rose wrote 8 letters. Nikil wrote 12 letters. How many more letters did Nikil write than Rose?

T: Partner A, using one color, make a stick of how many letters Rose wrote. Partner B, using a different color, make a stick to show the number of letters Nikil wrote. (Allow students time to make their sticks.)

T: Lay the two sticks down on the personal white board so we can compare them.

T: I see that many of you put your sticks side by side so that you can compare. Let's all turn our sticks the same way so we can talk about them together. (Demonstrate by laying down the sticks horizontally on a personal white board, as shown on the right.) (Point to the 8-stick.) This stick represents whose letters?



S: Rose's.

T: (Label *R* on the personal white board as shown.) (Point to the 12-stick.) This stick represents…?

S: Nikil's letters.

T: (Label with *N* as shown.) Watch me as I use these cubes to help me draw a double strip diagram to compare the number of letters Rose and Nikil wrote. (Write *R*.) How many letters did Rose write?

S: 8 letters.

T: (Draw a rectangle, and write 8 inside.)

T: (Write *N* in the next line.) How many letters did Nikil write?

S: 12 letters.

T: Will his strip, his part, be longer or shorter than Rose's strip, her part?

S: Longer!

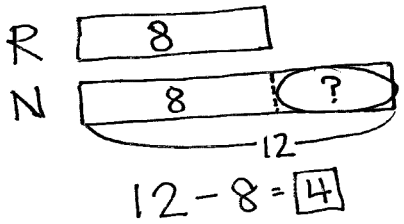
T: Tell me when to stop when you think the length of the strip represents 12. (Begin drawing the strip.)

S: Stop!

T: (Stop at an appropriate length to represent 12, and complete the rectangle.) What number goes with this strip?

S: 12.

T: The question says, "How many more letters did Nikil write than Rose?" This strip (point to Rose's strip) represents 8, so this much of Nikil's strip is also 8. (Partition Nikil's strip with a dotted line, and write 8.) This part of Nikil's strip represents how many more letters he wrote. (Circle that part of Nikil's strip, and write a question mark as shown to the right.)



T: What is the total number of letters Nikil wrote?

S: 12 letters.

T: What is the part of Nikil's letters that are the same number as Rose's letters?

S: The 8 letters.

T: (Point to the question mark.) How many more letters did Nikil write than Rose? What can we do to figure out the unknown part? Turn and talk to your partner.

S: I compared the linking cubes we made and counted the extra cubes. I counted on. → There were 8, and I counted on 4 more to get to 12. There were 4 more cubes. → I thought 8 + ____= 12. It's 4. → I used subtraction. I took away 8 from 12 and got 4.

T: If we count on 4 more from 8, we are adding 8 + 4 to get 12. If we cover up the 8 to see how many more letters he wrote, that is the same as taking away 8 from…?

S: 12.

T: What is 12 – 8?

S: 4.

T: How many more letters did Nikil write?

S: 4 letters.

T: I want you to see that we can use subtraction to compare the number of letters Rose and Nikil wrote.

T: Who wrote fewer letters?

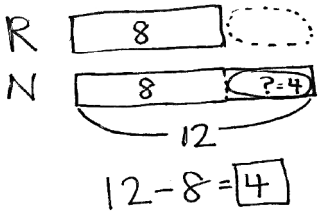
S: Rose.

T: How do you know?

S: The strip diagram is shorter than Nikil's. → We know that Nikil wrote more, so Rose wrote fewer.

T: How many fewer letters did Rose write than Nikil? How do you know?

S: Four fewer letters! → Look at Rose's strip diagram. She needs 4 more to match Nikil's strip diagram. → Eight is 4 less than 12. → Nikil wrote 4 more letters, so Rose wrote 4 fewer letters. → Take away 8 from 12, and that tells you how many fewer letters Rose wrote.



T: (Draw an invisible circle around the space after Rose's strip that would be where the additional letters would need to be for Rose to have the same number of letters as Nikil.) This part is the same length as Nikil's extra 4 letters. When two strips are arranged one above the other like this, we call that a double strip diagram. (In the image to the right, a dotted line is included to show where to demonstrate the invisible circle.)

Repeat the process with the following story problems. For each problem, ask students to use the linking cubes with their partners to represent the story. Guide them through drawing the double strip diagrams.

Tamra collected 9 seashells on the beach. Julio collected 11 seashells.

a. How many more seashells did Julio collect?

b. How many fewer seashells did Tamra collect?

c. How many seashells did Tamra and Julio collect? (This component provides a good contrast between the *comparison* problem type and a *join* problem type.)

Willie saw 13 leaping lizards at the park.
Fran saw 8 leaping lizards.

a. How many more lizards did Willie see?
b. How many fewer lizards did Fran see?
c. How many lizards did Willie and Fran see?

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. Some problems do not specify a method for solving. This is an intentional reduction of scaffolding that invokes 1.1C, selecting tools as appropriate to solve problems. Students should solve these problems using the RDW process used for Application Problems.

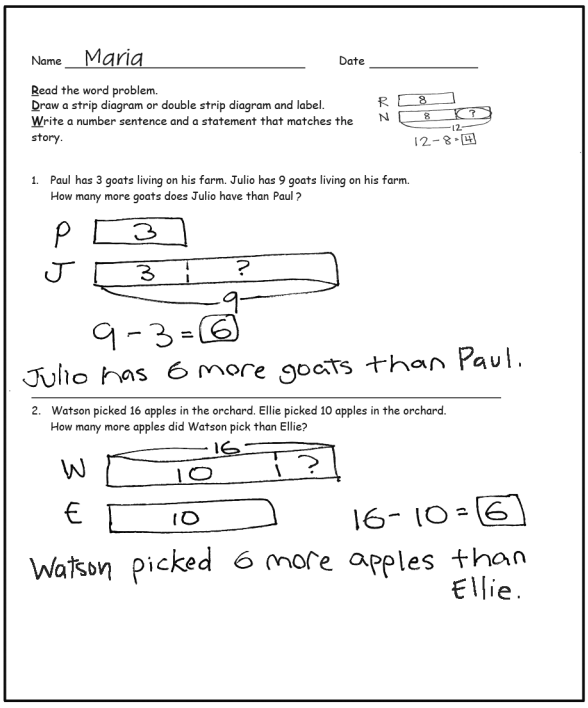
For some classes, it may be appropriate to adjust the assignment by specifying which problems students should work on first. With this option, let the purposeful sequencing of the Problem Set guide the selections so that problems continue to be scaffolded. Balance word problems with other problem types to ensure a range of practice. Consider assigning incomplete problems for homework or at another time during the day.

Student Debrief (10 minutes)

Lesson Objective: Solve *compare with difference unknown* problem types.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.


Name Maria Date

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

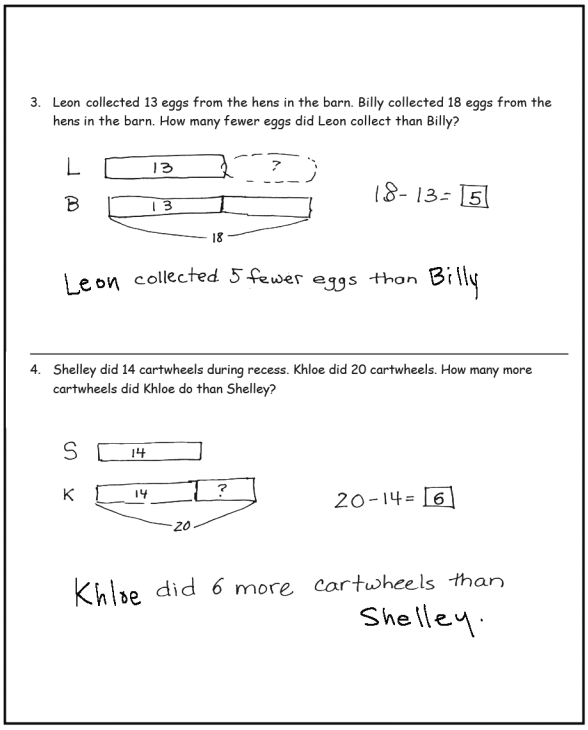
R 8
N 8 ?
12
12 − 8 = 4

1. Paul has 3 goats living on his farm. Julio has 9 goats living on his farm. How many more goats does Julio have than Paul?

P 3
J 3 ? 9
9 − 3 = 6
Julio has 6 more goats than Paul.

2. Watson picked 16 apples in the orchard. Ellie picked 10 apples in the orchard. How many more apples did Watson pick than Ellie?

W 16
10 ?
E 10
16 − 10 = 6
Watson picked 6 more apples than Ellie.


3. Leon collected 13 eggs from the hens in the barn. Billy collected 18 eggs from the hens in the barn. How many fewer eggs did Leon collect than Billy?

L 13 ?
B 13
18
18 − 13 = 5
Leon collected 5 fewer eggs than Billy

4. Shelley did 14 cartwheels during recess. Khloe did 20 cartwheels. How many more cartwheels did Khloe do than Shelley?

S 14
K 14 ?
20
20 − 14 = 6
Khloe did 6 more cartwheels than Shelley.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. Using the same story, how many fewer goats does Peter have than Julio? What do you notice about the answer to the question in the problem and this new question? Explain your thinking. How was setting up Problem 3 similar to and different from setting up Problems 1 and 2? What did you need to be sure to do? Why?
- When we know the total and just one of the parts, what strategy did we use to solve for the missing part?
- When two strips are arranged one above the other like the ones we used today, we call that a double strip diagram. How does setting up our two strips this way help you compare?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

My Addition Practice

1. 6 + 0 = ___	11. 7 + 1 = ___	21. 5 + 3 = ___
2. 0 + 6 = ___	12. ___ = 1 + 7	22. ___ = 5 + 4
3. 5 + 1 = ___	13. 3 + 3 = ___	23. 6 + 4 = ___
4. 1 + 5 = ___	14. 3 + 4 = ___	24. 4 + 6 = ___
5. 6 + 1 = ___	15. ___ = 3 + 5	25. ___ = 4 + 4
6. 1 + 6 = ___	16. 6 + 3 = ___	26. 3 + 4 = ___
7. 6 + 2 = ___	17 7 + 3 = ___	27. 5 + 5 = ___
8. 5 + 2 = ___	18. ___ = 7 + 2	28. ___ = 4 + 5
9. 2 + 5 = ___	19. 2 + 7 = ___	29. 3 + 7 = ___
10. 2 + 4 = ___	20. 2 + 8 = ___	30. ___ = 3 + 6

Today I finished _____ problems.

I solved _____ problems correctly.

Name _____ Date _____

My Missing Addend Practice

1. 6 + ____ = 6	11. 3 + ____ = 6	21. 4 + ____ = 7
2. 0 + ____ = 6	12. 4 + ____ = 8	22. 7 = 3 + ____
3. 5 + ____ = 6	13. 10 = 5 + ____	23. 2 + ____ = 7
4. 4 + ____ = 6	14. 5 + ____ = 9	24. 2 + ____ = 8
5. 0 + ____ = 7	15. 5 + ____ = 7	25. 9 = 2 + ____
6. 6 + ____ = 7	16. 8 = 5 + ____	26. 2 + ____ = 10
7. 1 + ____ = 7	17. 5 + ____ = 9	27. 10 = 3 + ____
8. 7 + ____ = 8	18. 8 + ____ = 10	28. 3 + ____ = 9
9. 1 + ____ = 8	19. 7 + ____ = 10	29. 4 + ____ = 9
10. 6 + ____ = 8	20. 10 = 6 + ____	30. 10 = 4 + ____

Today I finished _____ problems.

I solved _____ problems correctly.

Name _____ Date _____

My Related Addition and Subtraction Practice

1. 5 + ___ = 6	11. 7 + ___ = 10	21. 4 + ___ = 8
2. 1 + ___ = 6	12. 10 – 7 = ___	22 8 – 4 = ___
3. 6 – 1 = ___	13. 5 + ___ = 7	23. 4 + ___ = 7
4. 9 + ___ = 10	14. 7 – 5 = ___	24. 7 – 4 = ___
5. 1 + ___ = 10	15. 5 + ___ = 8	25. 5 + ___ = 9
6. 10 – 9 = ___	16. 8 – 5 = ___	26. 9 – 5 = ___
7. 5 + ___ = 10	17. 4 + ___ = 6	27. 6 + ___ = 9
8. 10 – 5 = ___	18. 6 – 4 = ___	28. 9 – 6 = ___
9. 8 + ___ = 10	19. 3 + ___ = 6	29. 4 + ___ = 7
10. 10 – 8 = ___	20. 6 – 3 = ___	30. 7 – 4 = ___

Today I finished _____ problems.

I solved _____ problems correctly.

Name _____ Date _____

My Subtraction Practice

1. 6 – 0 = ___	11. 6 – 3 = ___	21. 8 – 4 = ___
2. 6 – 1 = ___	12. 7 – 3 = ___	22. 8 – 3 = ___
3. 7 – 1 = ___	13. 9 – 3 = ___	23 8 – 5 = ___
4. 8 – 1 = ___	14. 10 – 8 = ___	24 9 – 5 = ___
5. 6 – 2 = ___	15. 10 – 6 = ___	25. 9 – 4 = ___
6. 7 – 2 = ___	16. 10 – 4 = ___	26. 7 – 3 = ___
7. 9 – 2 = ___	17. 10 – 5 = ___	27. 10 – 7 = ___
8. 10 – 10 = ___	18. 7 – 6 = ___	28. 9 – 7 = ___
9. 10 – 9 = ___	19. 7 – 5 = ___	29 9 – 6 = ___
10. 10 – 7 = ___	20. 6 – 4 = ___	30. 8 – 6 = ___

Today I finished _____ problems.

I solved _____ problems correctly.

Name _____ Date _____

My Mixed Practice

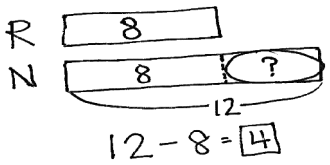
1. 4 + 2 = ___	11. 2 + ___ = 6	21. 8 – 5 = ___
2. 2 + ___ = 6	12. 6 – 2 = ___	22. 3 + ___ = 8
3. 6 = 3 + ___	13. 6 – 4 = ___	23. 8 = ___ + 5
4. 2 + 5 = ___	14. 5 + ___ = 7	24. ___ + 2 = 9
5 7 = 5 + ___	15. 7 – 5 = ___	25. 9 = ___ + 7
6. 4 + 3 = ___	16. 7 – 4 = ___	26. 9 – 2 = ___
7. 7 = ___ + 4	17. 7 – 3 = ___	27. 9 – 7 = ___
8. 8 = ___ + 4	18. 8 = 6 + ___	28. 9 – 6 = ___
9. 4 + 5 = ___	19. 8 – 2 = ___	29. 9 = ___ + 4
10. 9 = ___ + 4	20. 8 – 6 = ___	30. 9 – 6 = ___

Today I finished _____ problems.

I solved _____ problems correctly.

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



1. Paul has 3 goats living on his farm. Julio has 9 goats living on his farm. How many more goats does Julio have than Paul?

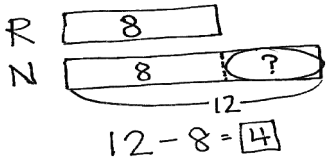
2. Watson picked 16 apples in the orchard. Ellie picked 10 apples in the orchard. How many more apples did Watson pick than Ellie?

3. Leon collected 13 eggs from the hens in the barn. Billy collected 18 eggs from the hens in the barn. How many fewer eggs did Leon collect than Billy?

4. Shelley did 14 cartwheels during recess. Khloe did 20 cartwheels. How many more cartwheels did Khloe do than Shelley?

Name _____ Date _____

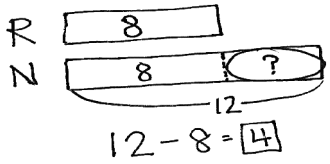
Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



Luis drove around the racetrack 12 times during the race. Beth drove around the racetrack 17 times. How many more times did Beth go around the racetrack than Luis?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



1. Fran donated 11 of her old books to the library. Dante donated 8 of his old books to the library. How many more books did Fran donate than Dante?

2. During recess, 7 students were reading books. There were 17 students playing on the playground. How many fewer students were reading books than playing on the playground?

3. Marianne is 18 years old. Her brother Jesus is 12 years old. How much older is Marianne than her brother Jesus?

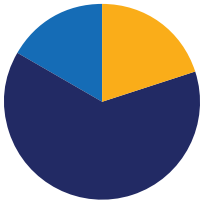
4. It rained 15 days in the month of March. It rained 19 days in April. How many more days did it rain in April than in March?

Lesson 2

Objective: Solve *compare with bigger or smaller unknown* problem types.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(38 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (12 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Number Bond Addition and Subtraction **1.3D** (5 minutes)
- Happy Counting **1.5A, 1.5B** (2 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Help students become aware of their improvement. After students finish today's Practice Sets, ask them to raise their hands if they tried a new level today or improved their score from the previous day.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Number Bond Addition and Subtraction (5 minutes)

Materials: (S) Personal white board, die per pair

Note: Practice with missing addends and subtraction helps prepare students to solve comparison problems in today's Concept Development.

Conduct the activity as directed in Lesson 1.

Happy Counting (2 minutes)

Note: In this module, students do addition and subtraction within 100 and extend their counting and number writing skills to 120. Give students practice counting by ones and tens within 100. When Happy Counting by ones, spend more time changing directions where changes in tens occur, which is typically more challenging.

Conduct the activity as directed in Lesson 1.

Concept Development (38 minutes)

Materials: (T) Chart with Lesson 1's strip diagram and Problem 2, chart with today's Problems 2 and 3, 4 ten-sticks (S) Personal math toolkit with 4 ten-sticks, personal white board

Note: Today's lesson objective is addressing word problems. Therefore, there is no separate Application Problem.

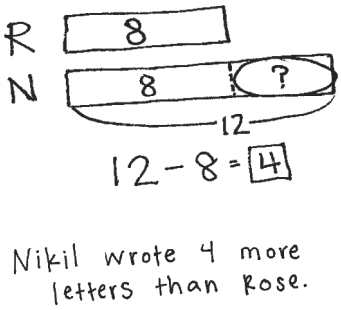
Gather students in the meeting area with their materials.

Problem 1

T: (Post the strip diagram from yesterday's Concept Development, Problem 2.)

T: What was the story that went with this strip diagram, in the last lesson?

S: Rose and Nikil both wrote letters. Rose wrote 8 letters, and Nikil wrote 12 letters. → How many more letters did Nikil write than Rose? → We also answered how many fewer letters Rose wrote than Nikil. → We also figured out how many letters Nikil and Rose wrote in all.



T: Great! I have a new problem for you. (Point to the diagram as you speak.) Rose wrote 8 letters. Nikil wrote 4 more letters than Rose. How many letters did Nikil write? Turn and talk with your partner. (Wait as students discuss.)

T: If Rose wrote 8 letters, and Nikil wrote 4 more letters than Rose, how many letters did Nikil write?

S: 12 letters!

T: How do you know?

S: You have to add Rose's 8 letters and then 4 more. → You can look at the strip diagram on the chart. Nikil has the same 8 letters as Rose plus 4 more letters.

T: In the last lesson, you subtracted to find the difference between the two sets of letters. Is that what you did this time? Talk with a partner, and decide what number sentence you needed to use. (Wait as students discuss.)

S: We needed to add this time. → Eight letters plus 4 more letters is 12 letters. → 8 + 4 = 12.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students needing additional support consider using either smaller numbers or encouraging students to include circle representations for the objects, and then draw rectangles around the circles to create the strip diagrams.

Problem 2

T: Let's try another one. This time, use your linking cubes with a partner. Each of you will show linking cubes for your character.

T/S: Ben solved 6 math problems. Robin solved 4 more problems than Ben. How many problems did Robin solve?

T: Partner A, represent the problems Ben solved. Partner B, represent the problems Robin solved. Then, use your linking cubes to try to solve the problem together. (Circulate as students work to solve the problem. Remind them to read each sentence to recheck their work, making sure that their cubes match every part of the story.)

T: Let's draw a strip diagram to show what you just did. Who is this story about?

S: Ben and Robin.

T: (Write *B* and *R* to start a double strip diagram.) I like that most of you remembered to label your parts.

T: They each solved math problems. (Draw the same size rectangle next to each letter. This will help highlight the parts that are the same as well as the additional part that will be in Robin's strip.)

T: What do you notice about these two strips?

S: They are the same size!

T: The same size strip means they solved the same amount of problems. Is this true?

S: No!

T: Who solved more problems?

S: Robin!

T: You are right! I'm going to add an extra part of strip next to Robin's to show that she solved more problems than Ben. (Draw.) How many more problems did Robin solve?

S: Four more problems.

T: Let's go back to our story. Read the first sentence.

S: Ben solved 6 math problems.

T: What information can I add to my double strip diagram?

S: Write 6 in Ben's strip!

T: Where else can I write in the 6? Turn and talk to your partner, and explain why.

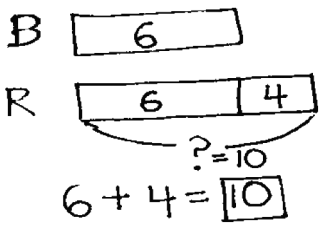
S: Write 6 in the first part of Robin's strip. → It's the same size as Ben's strip, so it makes sense to put 6 there, too. → It makes sense to put 6 in Robin's first rectangle because the story says she solved 4 more than Ben. It has to show 4 more than 6 since 6 stands for how many problems Ben solved.

T: Great. (Write 6 in the first part of Robin's strip.) Does this match the linking cubes on your personal white board?

S: Yes!

T: If it doesn't, this is a good time to fix your model.

T: As I read each part of the story problem again, touch the part of the double strip model on your board that corresponds to what I'm saying.



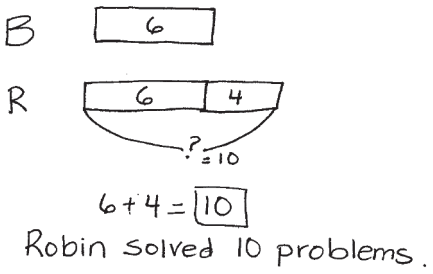
T/S: (Read each sentence, and have students point to the parts of their strip model.)

T: Write a number sentence that helped you find how many problems Robin solved.

S: 6 + 4 = 10.

T: How many problems did Robin solve?

S: Ten problems! (As students write 10 on the personal white board next to their model, add 10 to their double strip diagram as shown.)



Problem 3

T: Let's read another story problem together.

T/S: Tamra found 12 ladybugs. Willie found 4 fewer ladybugs than Tamra. How many ladybugs did Willie find?

T: Who are the people in this story problem?

S: Tamra and Willie!

T: (Record *T* and *W* to begin a double strip diagram, and draw two equal size rectangles.)

T: Is it true that they found the same number of ladybugs?

S: No!

T: Who found *more* ladybugs? Read the story carefully again. Then, turn and talk to your partner.

S: Tamra. → It didn't say Tamra found more. But it said Willie found 4 *fewer* ladybugs. That means Tamra found *more*.

T: Great thinking! I need to add an extra strip, the "more strip," onto …?

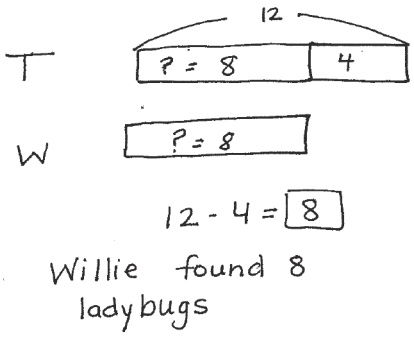
S: Tamra's strip!

T: (Add an extra box.) How many more ladybugs did Tamra find than Willie?

S: 4 more ladybugs.

T: (Record 4 in the extra strip.) Let's read the first sentence of the story.

T/S: Tamra found 12 ladybugs.



NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Solving problems with the word *fewer* can be challenging for students, including some emergent bilingual students. When solving problems of this type, teach students to always focus on "who has more." For example, after reading the problem, before solving, have students look at who has fewer and who has more. Establishing this before solving makes sure students really understand how to solve this problem type.

T: Take a look at Tamra's strip. Turn and talk to your partner about where the 12 should go.

S: It should go inside the first part of the strip. → No. It should go outside like we did yesterday for Nikil's 12 letters. Twelve is the total number of ladybugs, so we need to put the arms around the entire strip for Tamra.

T: Hmm, let's try the first idea and see. (Write 12 in the first strip.) According to Tamra's strip now, did she find 12 ladybugs?
S: No. It looks like she found 16 ladybugs.
T: You are right. Is 12 the total amount of ladybugs Tamra found or just a part?
S: The total.
T: Let's try the other suggestion.
T: (Make a bracket with 12 for Tamra's strip.) Does this show that Tamra found a total of 12 ladybugs?
S: Yes!
T: Read the next sentence.
S: Willie found 4 fewer ladybugs than Tamra.
T: Did we show that in our double strip diagram?
S: Yes!
T: Read the last part of our story problem.
S: How many ladybugs did Willie find?
T: (Record a question mark in Willie's strip.) Look at Willie's strip. What do you notice about the size of the strip?
S: It's the same as the first part of Tamra's strip.
T: If we find out what the missing part for Tamra's strip is, then we are also finding out…?
S: Willie's strip.
T: How can we find this missing part of Tamra's strip? Turn and talk to your partner.
S: I did 4 + ___ = 12. The answer is 8. → I used subtraction to find the missing part. 12 – 4 = 8. The missing part is 8.
T: Great. If this part is 8 (fill in the 8 to complete Tamra's strip), then what else is 8?
S: Willie's strip!
T: So, how many ladybugs did Willie find?
S: 8 ladybugs!

Repeat the process by using the following story problems. For each problem, guide students through drawing the double strip diagram.

- Shanika used 11 blocks to build a house. Julio used 5 more blocks than Shanika. How many blocks did Julio use?
- Darnel caught 10 fewer fish than Fran. Fran caught 16 fish. How many fish did Darnel catch?
- Maria found 9 flowers in the garden. Kiana found 12 flowers. How many more flowers did Kiana find than Maria?

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Solve *compare with bigger or smaller unknown* problem types.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

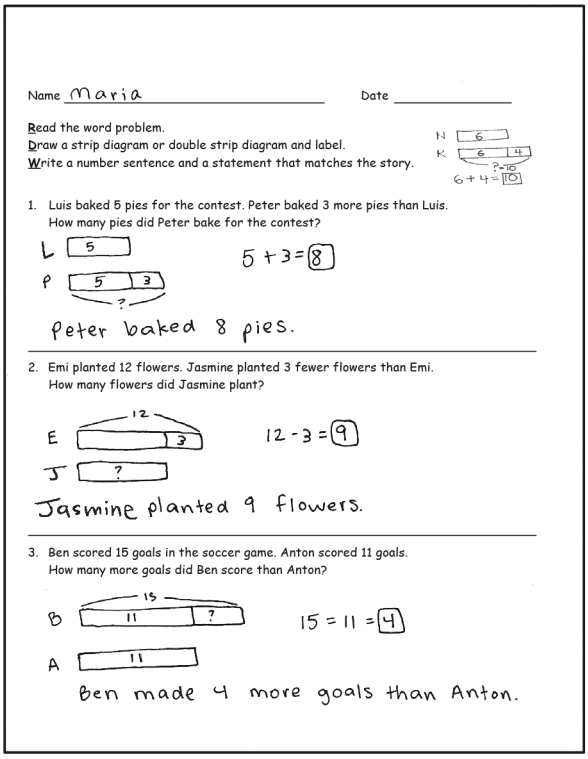
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problems 1 and 2. How was drawing Nikil's strip and Emi's strip different? Explain why this is so.
- How was setting up the strip diagram from Problem 3 different from Problem 1?
- Explain to your partner how you solved Problem 6.
- In which problem were you able to use your doubles or doubles plus 1 facts to solve?
- How did working on number bond addition and subtraction in today's fluency activity help you with solving today's story problems?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Maria Date

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Luis baked 5 pies for the contest. Peter baked 3 more pies than Luis. How many pies did Peter bake for the contest?

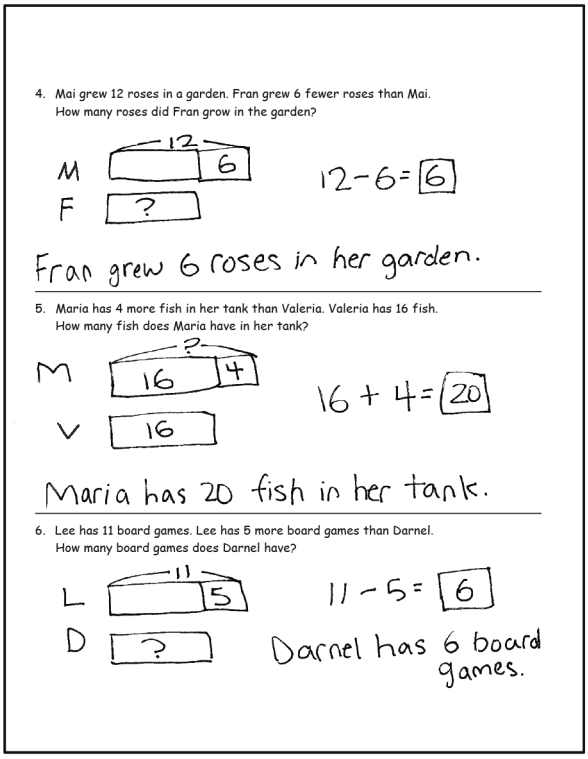
L 5
P 5 3 ?
5 + 3 = 8
Peter baked 8 pies.

2. Emi planted 12 flowers. Jasmine planted 3 fewer flowers than Emi. How many flowers did Jasmine plant?

E 12 3
J ?
12 - 3 = 9
Jasmine planted 9 flowers.

3. Ben scored 15 goals in the soccer game. Anton scored 11 goals. How many more goals did Ben score than Anton?

B 15 11 ?
A 11
15 - 11 = 4
Ben made 4 more goals than Anton.



4. Mai grew 12 roses in a garden. Fran grew 6 fewer roses than Mai. How many roses did Fran grow in the garden?

M 12 6
F ?
12 - 6 = 6
Fran grew 6 roses in her garden.

5. Maria has 4 more fish in her tank than Valeria. Valeria has 16 fish. How many fish does Maria have in her tank?

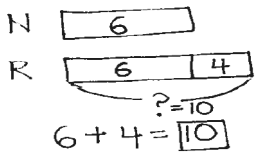
M ? 16 4
V 16
16 + 4 = 20
Maria has 20 fish in her tank.

6. Lee has 11 board games. Lee has 5 more board games than Darnel. How many board games does Darnel have?

L 11 5
D ?
11 - 5 = 6
Darnel has 6 board games.

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



1. Luis baked 5 pies for the contest. Peter baked 3 more pies than Luis. How many pies did Peter bake for the contest?

2. Emi planted 12 flowers. Jasmine planted 3 fewer flowers than Emi. How many flowers did Jasmine plant?

3. Ben scored 15 goals in the soccer game. Anton scored 11 goals. How many more goals did Ben score than Anton?

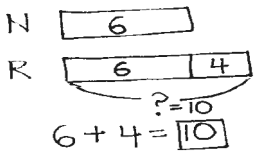
4. Mai grew 12 roses in a garden. Fran grew 6 fewer roses than Mai. How many roses did Fran grow in the garden?

5. Maria has 4 more fish in her tank than Valeria. Valeria has 16 fish. How many fish does Maria have in her tank?

6. Lee has 11 board games. Lee has 5 more board games than Darnel. How many board games does Darnel have?

Name _____ Date _____

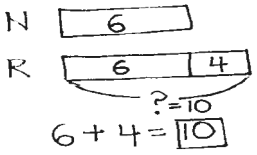
Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



Tamra decorated 13 cookies. Kiana decorated 5 fewer cookies than Tamra. How many cookies did Kiana decorate?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.



1. Kim went to 15 baseball games this summer. Julio went to 10 baseball games. How many more games did Kim go to than Julio?

2. Kiana picked 14 strawberries at the farm. Aria picked 5 fewer strawberries than Kiana. How many strawberries did Aria pick?

3. Willie saw 7 reptiles at the zoo. Emi saw 4 more reptiles at the zoo than Willie. How many reptiles did Emi see at the zoo?

4. Vinh jumped into the swimming pool 6 times more than Darnel. Darnel jumped in 9 times. How many times did Vinh jump into the swimming pool?

5. Rose found 16 seashells on the beach. Lee found 6 fewer seashells than Rose. How many seashells did Lee find on the beach?

6. Shanika got 12 cards in the mail. Nikil got 5 more cards than Shanika. How many cards did Nikil get?

Topic B

Numbers to 120

1.2B, 1.2C, 1.2D, 1.2E, 1.2F, 1.2G, 1.3A, 1.5A, 1.5B, 1.5C

Focus Standards:	1.2B	Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.
	1.2C	Use objects, pictures, and expanded and standard forms to represent numbers up to 120.
	1.2D	Generate a number that is greater than or less than a given whole number up to 120.
	1.2E	Use place value to compare whole numbers up to 120 using comparative language.
	1.2F	Order whole numbers up to 120 using place value and open number lines.
	1.2G	Represent the comparison of two numbers to 100 using the symbols >, <, or =.
	1.3A	Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems to 99.
	1.5A	Recite numbers forward and backward from any given number between 1 and 120.
	1.5B	Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.
	1.5C	Use relationships to determine the number that is 10 more and 10 less than a given number up to 120.
Instructional Days:	12	
Coherence -Links from:	G1–M4	Place Value, Comparison, Addition and Subtraction of Numbers to 40
-Links to:	G2–M3	Place Value, Counting, and Comparison of Numbers to 1,200

Topic B extends students' use of counting sequences and their understanding of tens and ones to numbers up to and including 120.

In Lesson 3, students apply their understanding of tens and ones to two-digit numbers greater than 40. Students count by tens and then count on by extra ones to efficiently count large groups of objects. They then use the place value chart to record quantities as tens and ones as well as by their traditional number (**1.2B**).

In Lesson 4, students connect the understanding they gained in Lesson 3 with its application to addition sentences. Students recognize that numbers such as 67 can be interpreted as 6 tens 7 ones and that the units can be combined to find the total: 60 + 7 = 67. This work of decomposing and composing 67 into its tens and ones deepens students' understanding of place value and prepares them for Grade 2 mathematics, in which they decompose two-digit numbers before adding to another two-digit number.

In Lesson 5, students work with the counting sequence to 120 (**1.2D, 1.5A**). After counting from 78 to 120, students use Hide Zero® cards to build numbers from 100 to 120. They relate their strong familiarity with counting from 0 to 20 and backward from 20 to 0 to the sequence from 100 to 120, helping students recognize that their prior knowledge can help them succeed at this new level.

Students continue to use the Hide Zero cards in Lesson 6 to write numbers in place value charts. Students represent 100 as 10 tens and then represent 101 as 10 tens and 1 one. This work with the unit form of numbers to 120 supports students' understanding of the written numerals 101 through 109, which can be the most challenging to write (**1.2C**).

In Lesson 7, students build upon their knowledge of representing numbers using expanded form they learned in Module 4 to include numbers to 120 (**1.2C**).

In Lesson 8, students use written numerals to represent a set of objects within 120 (**1.2C**). Then, students use both objects and pictures to show that a set within 120 can be composed or decomposed in more than one way (**1.2b**). This supports students in seeing that numbers are flexible, deepens their understanding of place value, and provides a foundation for two-digit addition and subtraction that occurs in second grade.

In Lessons 9 and 10, students use their knowledge of place value to compare and generate numbers that are greater than or less than another number up to 120. Students recognize that 92 is greater than 89 because 9 tens are greater than 8 tens, making 92 the greater number (**1.2D, 1.2F**).

Then, during Lesson 11, students order numbers up to 120 using place value and an open number line (**1.2F**).

Students continue to apply their place value understanding in Lesson 12 as they identify 10 more, 10 less, 1 more, and 1 less than any number up to 120 (**1.5C**). This work helps students attend to the parts within a two-digit number, a skill that is critical for adding two-digit numbers within 100. Students recognize that when looking at a number such as 37, they focus on the tens place when adding or subtracting 10 and on the ones place when adding or subtracting 1. Students also explore numbers such as 89, for which adding 1 more creates another ten.

In Lesson 13, students practice comparing numbers using the symbols >, =, and < (**1.2E, 1.2G**). They compare numbers such as 65 and 75, as well as numbers in various unit form combinations such as 7 tens 5 ones, 5 ones 7 tens, and 6 tens 15 ones. Through these explorations, students consider ways that each number can be decomposed and recomposed.

Finally, during Lesson 14, students apply their understanding of composing a 10 and place value to use concrete models to determine the sum of a multiple of 10 and a one-digit number in sums up to 99 (**1.3A**). For example, when solving 89 + 6, students may make the next ten and then add the remaining amount (90 + 5) or they may break apart the addends by place value (89 + 6 = 80 + 9 + 6).

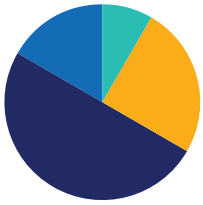
A Teaching Sequence Toward Proficiency in Numbers to 120	
Objective 1:	**Use the place value chart to record and name tens and ones within a two-digit number up to 100. (Lesson 3)**
Objective 2:	**Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones. (Lesson 4)**
Objective 3:	**Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120. (Lesson 5)**
Objective 4:	**Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart. (Lesson 6)**
Objective 5:	**Use objects, pictures, and expanded form to represent numbers to 120. (Lesson 7)**
Objective 6:	**Represent up to 120 objects with a written numeral. (Lesson 8)**
Objective 7:	**Generate a number that is greater than or less than a given whole number up to 120. (Lesson 9)**
Objective 8:	**Use place value to compare whole numbers up to 120 using comparative language. (Lesson 10)**
Objective 9:	**Order whole numbers up to 120 using place value and open number lines. (Lesson 11)**
Objective 10:	**Identify 10 more, 10 less, 1 more, and 1 less than a two-digit number within 100. (Lesson 12)**
Objective 11:	**Use the symbols >, =, and < to compare numbers to 100. (Lesson 13)**
Objective 12:	**Use concrete models to determine the sum of a multiple of 10 and a one-digit number in sums up to 99. (Lesson 14)**

Lesson 3

Objective: Use the place value chart to record and name tens and ones within a two-digit number up to 100.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Subtraction with Cards **1.2E, 1.3D** (5 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints

Note: Choose an appropriate Sprint based on the needs of the class. For today's movement-counting between Sprints A and B, consider practicing counting the Say Ten way to prepare students for today's lesson. Follow the suggested counting pattern: Count by ones from 37 to 52 and back, and then count by tens from 87 to 107 and back.Fluency Sprint List:

- Addition Sprint 1 (targeting addition and missing addends)
- Addition Sprint 2 (targeting the most challenging addition within 10 and beyond 10)
- Subtraction Sprint (targeting subtraction)
- Fluency Sprint: Totals of 5, 6, and 7 (developing understanding of the relationship between addition and subtraction)
- Fluency Sprint: Totals of 8, 9, and 10 (developing understanding of the relationship between addition and subtraction)

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Differentiating Sprints for students helps meet the needs of the class. Adjust them to suit specific learning needs so students feel successful.

Subtraction with Cards (5 minutes)

Materials: (S) 1 pack of numeral cards 0–10 per set of partners (Fluency Template)

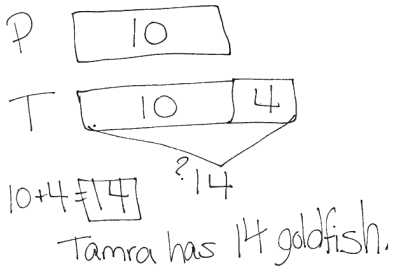
Note: This review activity strengthens students' ability to subtract within 10, which supports their work decomposing numbers in future lessons within the module.

- Students combine their digit cards and place them facedown between them.
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.
- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.
- A player wins by having the most cards when the time is up.

Application Problem (5 minutes)

Tamra has 4 more goldfish than Peter. Peter has 10 goldfish. How many goldfish does Tamra have?

Note: Throughout Module 6, the Application Problem comes before the Fluency Practice so that the fluency can move directly into the operations with two-digit numbers. Today's Application Problem continues students' practice with the *compare with bigger unknown* problem type, which was part of Lesson 2's objective.



Concept Development (30 minutes)

Materials: (T) Hide Zero cards (Template 1), chart paper (S) 4 ten-sticks from personal math toolkit, personal white board, place value chart (Template 2)

Students sit at their desks with their materials.

T: (Show 47 using Hide Zero cards.) What number am I showing?

S: 47.

T: When I pull apart these Hide Zero cards, 47 will be in two parts. What will they be?

S: 40 and 7.

T: (Write 40 and 7 on the board.) You're right! Explain to your partner why we don't see 40 but just the digit 4. (Listen as partners explain their thinking to each other.)

S: When you pull apart the cards, you'll see the 0 hiding behind 7. → 4 stands for 40 because it's in the tens place. 7 stands for just 7 ones.

T: (Pull apart 47 into 40 and 7.) You are right! Show me 47 using quick ten drawings. Count out each ten, and add on each of the ones the Say Ten way as you draw them.
S: 1 ten, 2 tens, 3 tens, 4 tens, 4 tens 1, 4 tens 2, …, 4 tens 7.
T: How many tens did you draw?
S: 4 tens.
T: How many ones did you draw?
S: 7 ones.
T: Let's fill in the place value chart. How many tens are in 47?
S: 4 tens.
T: Let's write 4 in the…?
S: Tens place. (Fill in 4.)
T: How many ones are in 47?
S: 7 ones.
T: Let's write 7 in the…?
S: Ones place. (Fill in 7.)

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Provide challenging extensions for students. Give clues with tens and ones, and have students guess the number. For example, "What number is made up of …?"

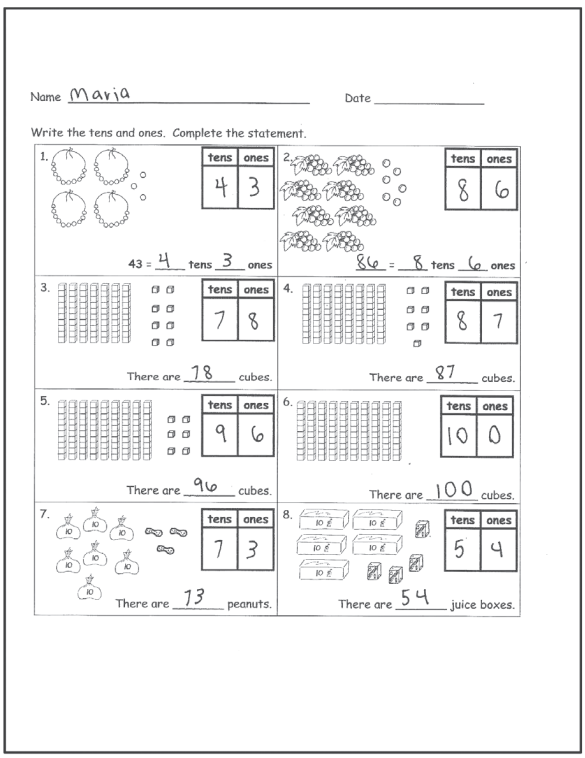
2 tens and 23 ones, 6 tens and 35 ones, 1 ten and 47 ones, 9 tens and 14 ones, etc.

Allow students who need more support, including some emergent bilingual students to use place value blocks to represent the numbers. The manipulatives can help students gain confidence in their reasoning and understanding.

Repeat the process with the following suggested sequence: 57, 67, 86, 68, 95, and 100.

T: (Write 64 on the place value chart.) What does the digit 6 stand for?
S: 6 tens.
T: 6 tens is the same as…?
S: 60.
T: What does the digit 4 stand for?
S: 4 ones.
T: What is 6 tens and 4 ones, or 60 and 4?
S: 64.

Repeat the process using the following sequence: 74, 84, 93, 73, 65, 56, 79, 97, and 100.


Name Maria Date

Write the tens and ones. Complete the statement.

1. tens 4, ones 3. 43 = 4 tens 3 ones
2. tens 8, ones 6. 86 = 8 tens 6 ones
3. tens 7, ones 8. There are 78 cubes.
4. tens 8, ones 7. There are 87 cubes.
5. tens 9, ones 6. There are 96 cubes.
6. tens 10, ones 0. There are 100 cubes.
7. tens 7, ones 3. There are 73 peanuts.
8. tens 5, ones 4. There are 54 juice boxes.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

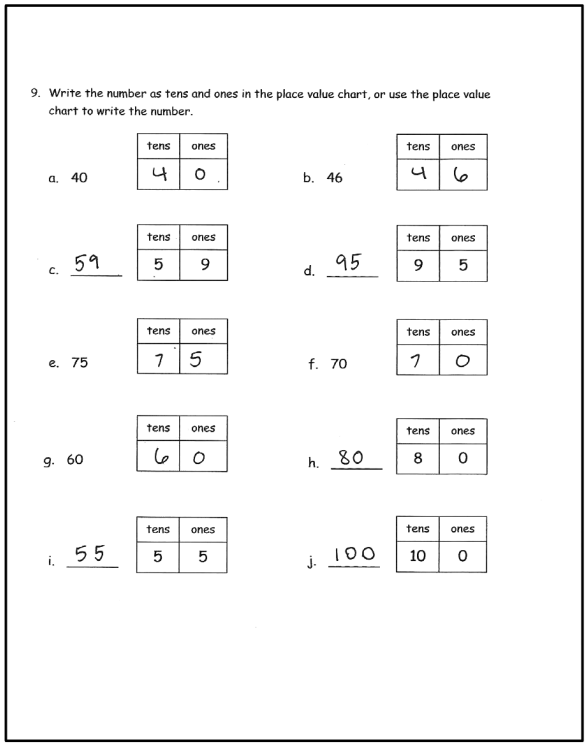
Lesson Objective: Use the place value chart to record and name tens and ones within a two-digit number up to 100.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at your answers for Problems 1 and 7. What is the difference between these two numbers? Explain how you know.
- For Problem 3, a student said there are 87 cubes. Is he correct? How can you help this student so he understands place value correctly?
- Using a quick ten drawing or your Hide Zero cards, explain how you solved Problem 9(j).
- Look at Problem 9(b). What must we add to 46 to get 5 tens and 0 ones?
- Think about the movement-counting we did between our two Sprints today. How can counting the Say Ten way help you think about the tens and ones in two-digit numbers? Use an example as you share your explanation.
- Look at your Application Problem. How did you solve the problem? Which problem from yesterday is this problem most like?



9. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 40

tens	ones
4	0

b. 46

tens	ones
4	6

c. 59

tens	ones
5	9

d. 95

tens	ones
9	5

e. 75

tens	ones
7	5

f. 70

tens	ones
7	0

g. 60

tens	ones
6	0

h. 80

tens	ones
8	0

i. 55

tens	ones
5	5

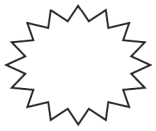
j. 100

tens	ones
10	0

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

A

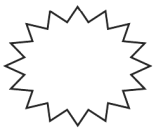
Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	4 + 1 = _____	16.	4 + 3 = _____
2.	4 + 2 = _____	17.	_____ + 4 = 7
3.	4 + 3 = _____	18.	7 = _____ + 4
4.	6 + 1 = _____	19.	5 + 4 = _____
5.	6 + 2 = _____	20.	_____ + 5 = 9
6.	6 + 3 = _____	21.	9 = _____ + 4
7.	1 + 5 = _____	22.	2 + 7 = _____
8.	2 + 5 = _____	23.	_____ + 2 = 9
9.	3 + 5 = _____	24.	9 = _____ + 7
10.	5 + _____ = 8	25.	3 + 6 = _____
11.	8 = 3 + _____	26.	_____ + 3 = 9
12.	7 + 2 = _____	27.	9 = _____ + 6
13.	7 + 3 = _____	28.	4 + 4 = _____ + 2
14.	7 + _____ = 10	29.	5 + 4 = _____ + 3
15.	_____ + 7 = 10	30.	_____ + 7 = 3 + 6

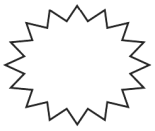
B

Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	5 + 1 = _____	16.	2 + 4 = _____
2.	5 + 2 = _____	17.	_____ + 4 = 6
3.	5 + 3 = _____	18.	6 = _____ + 4
4.	4 + 1 = _____	19.	3 + 4 = _____
5.	4 + 2 = _____	20.	_____ + 3 = 7
6.	4 + 3 = _____	21.	7 = _____ + 4
7.	1 + 3 = _____	22.	4 + 5 = _____
8.	2 + 3 = _____	23.	_____ + 4 = 9
9.	3 + 3 = _____	24.	9 = _____ + 5
10.	3 + _____ = 6	25.	2 + 6 = _____
11.	_____ + 3 = 6	26.	_____ + 6 = 9
12.	5 + 2 = _____	27.	9 = _____ + 2
13.	5 + 3 = _____	28.	3 + 3 = _____ + 4
14.	5 + _____ = 8	29.	3 + 4 = _____ + 5
15.	_____ + 3 = 8	30.	_____ + 6 = 2 + 7

Number Correct: 

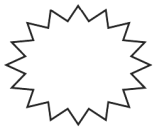
A

Name _____ Date _____

*Write the unknown number. Pay attention to the equal sign.

1.	5 + 2 = _____	16.	_____ = 5 + 4
2.	6 + 2 = _____	17.	_____ = 4 + 5
3.	7 + 2 = _____	18.	6 + 3 = _____
4.	4 + 3 = _____	19.	3 + 6 = _____
5.	5 + 3 = _____	20.	_____ = 2 + 6
6.	6 + 3 = _____	21.	2 + 7 = _____
7.	_____ = 6 + 2	22.	_____ = 3 + 4
8.	_____ = 2 + 6	23.	3 + 6 = _____
9.	_____ = 7 + 2	24.	_____ = 4 + 5
10.	_____ = 2 + 7	25.	3 + 4 = _____
11.	_____ = 4 + 3	26.	13 + 4 = _____
12.	_____ = 3 + 4	27.	3 + 14 = _____
13.	_____ = 5 + 3	28.	3 + 6 = _____
14.	_____ = 3 + 5	29.	13 + _____ = 19
15.	_____ = 3 + 4	30.	19 = _____ + 16

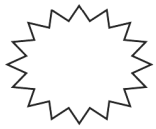
B

Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the equal sign.

1.	4 + 3 = _____	16.	_____ = 6 + 3
2.	5 + 3 = _____	17.	_____ = 3 + 6
3.	6 + 3 = _____	18.	5 + 4 = _____
4.	6 + 2 = _____	19.	4 + 5 = _____
5.	7 + 2 = _____	20.	_____ = 2 + 7
6.	5 + 4 = _____	21.	2 + 6 = _____
7.	_____ = 4 + 3	22.	_____ = 3 + 4
8.	_____ = 3 + 4	23.	4 + 5 = _____
9.	_____ = 5 + 3	24.	_____ = 3 + 6
10.	_____ = 3 + 5	25.	2 + 7 = _____
11.	_____ = 6 + 2	26.	12 + 7 = _____
12.	_____ = 2 + 6	27.	2 + 17 = _____
13.	_____ = 7 + 2	28.	4 + 5 = _____
14.	_____ = 2 + 7	29.	14 + _____ = 19
15.	_____ = 7 + 2	30.	19 = _____ + 15

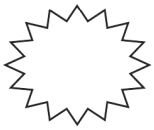
Number Correct: 

A

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	6 - 1 = _____	16.	8 - 2 = _____
2.	6 - 2 = _____	17.	8 - 6 = _____
3.	6 - 3 = _____	18.	7 - 3 = _____
4.	10 - 1 = _____	19.	7 - 4 = _____
5.	10 - 2 = _____	20.	8 - 4 = _____
6.	10 - 3 = _____	21.	9 - 4 = _____
7.	7 - 2 = _____	22.	9 - 5 = _____
8.	8 - 2 = _____	23.	9 - 6 = _____
9.	9 - 2 = _____	24.	9 - _____ = 6
10.	7 - 3 = _____	25.	9 - _____ = 2
11.	8 - 3 = _____	26.	2 = 8 - _____
12.	10 - 3 = _____	27.	2 = 9 - _____
13.	10 - 4 = _____	28.	10 - 7 = 9 - _____
14.	9 - 4 = _____	29.	9 - 5 = _____ - 3
15.	8 - 4 = _____	30.	_____ - 6 = 9 - 7

Number Correct: 

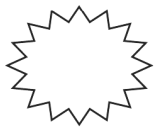
B

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	5 – 1 = _____	16.	6 – 2 = _____
2.	5 – 2 = _____	17.	6 – 4 = _____
3.	5 – 3 = _____	18.	8 – 3 = _____
4.	10 – 1 = _____	19.	8 – 5 = _____
5.	10 – 2 = _____	20.	8 – 6 = _____
6.	10 – 3 = _____	21.	9 – 3 = _____
7.	6 – 2 = _____	22.	9 – 6 = _____
8.	7 – 2 = _____	23.	9 – 7 = _____
9.	8 – 2 = _____	24.	9 – _____ = 5
10.	6 – 3 = _____	25.	9 – _____ = 4
11.	7 – 3 = _____	26.	4 = 8 – _____
12.	8 – 3 = _____	27.	4 = 9 – _____
13.	5 – 4 = _____	28.	10 – 8 = 9 – _____
14.	6 – 4 = _____	29.	8 – 6 = _____ – 7
15.	7 – 4 = _____	30.	_____ – 4 = 9 – 6

A

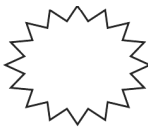
Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	2 + 3 = _____	16.	3 + 3 = _____
2.	3 + _____ = 5	17.	6 – 3 = _____
3.	5 – 3 = _____	18.	6 = _____ + 3
4.	5 – 2 = _____	19.	2 + 5 = _____
5.	_____ + 2 = 5	20.	5 + _____ = 7
6.	1 + 5 = _____	21.	7 – 2 = _____
7.	1 + _____ = 6	22.	7 – 5 = _____
8.	6 – 1 = _____	23.	7 = _____ + 5
9.	6 – 5 = _____	24.	3 + 4 = _____
10.	_____ + 5 = 6	25.	4 + _____ = 7
11.	4 + 2 = _____	26.	7 – 4 = _____
12.	2 + _____ = 6	27.	7 = _____ + 3
13.	6 – 2 = _____	28.	3 = 7 – _____
14.	6 – 4 = _____	29.	7 – 5 = _____ – 4
15.	_____ + 4 = 6	30.	_____ – 3 = 7 – 4

B

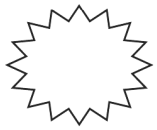
Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	1 + 4 = _____	16.	3 + 3 = _____
2.	4 + _____ = 5	17.	6 - 3 = _____
3.	5 - 4 = _____	18.	6 = _____ + 3
4.	5 - 1 = _____	19.	2 + 4 = _____
5.	_____ + 1 = 5	20.	4 + _____ = 6
6.	7 + 2 = _____	21.	6 - 2 = _____
7.	5 + _____ = 7	22.	6 - 4 = _____
8.	7 - 2 = _____	23.	6 = _____ + 4
9.	7 - 5 = _____	24.	3 + 4 = _____
10.	_____ + 2 = 7	25.	4 + _____ = 7
11.	1 + 5 = _____	26.	7 - 4 = _____
12.	1 + _____ = 6	27.	7 = _____ + 4
13.	6 - 1 = _____	28.	4 = 7 - _____
14.	6 - 5 = _____	29.	6 - 4 = _____ - 5
15.	_____ + 5 = 6	30.	_____ - 4 = 7 - 3

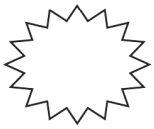
A

Number Correct: 

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

1.	5 + 5 = _____	16.	2 + 6 = _____
2.	5 + _____ = 10	17.	8 = 6 + _____
3.	10 – 5 = _____	18.	8 – 2 = _____
4.	9 + 1 = _____	19.	2 + 7 = _____
5.	1 + _____ = 10	20.	9 = 7 + _____
6.	10 – 1 = _____	21.	9 – 7 = _____
7.	10 – 9 = _____	22.	8 = _____ + 2
8.	_____ + 9 = 10	23.	8 – 6 = _____
9.	1 + 8 = _____	24.	3 + 6 = _____
10.	8 + _____ = 9	25.	9 = 6 + _____
11.	9 – 1 = _____	26.	9 – 6 = _____
12.	9 – 8 = _____	27.	9 = _____ + 3
13.	_____ + 1 = 9	28.	3 = 9 – _____
14.	4 + 4 = _____	29.	9 – 5 = _____ – 6
15.	8 – 4 = _____	30.	_____ – 7 = 8 – 6

Number Correct: 

B

Name _____ Date _____

*Write the unknown number. Pay attention to the symbols.

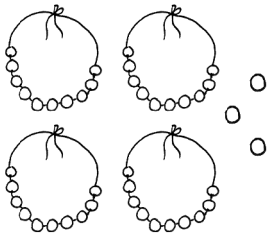
1.	9 + 1 = _____	16.	3 + 5 = _____
2.	1 + _____ = 10	17.	8 = 5 + _____
3.	10 – 1 = _____	18.	8 – 3 = _____
4.	10 – 9 = _____	19.	2 + 6 = _____
5.	_____ + 9 = 10	20.	8 = 6 + _____
6.	1 + 7 = _____	21.	8 – 6 = _____
7.	7 + _____ = 8	22.	2 + 7 = _____
8.	8 – 1 = _____	23.	9 = _____ + 2
9.	8 – 7 = _____	24.	9 – 7 = _____
10.	_____ + 1 = 8	25.	4 + 5 = _____
11.	2 + 8 = _____	26.	9 = 5 + _____
12.	2 + _____ = 10	27.	9 – 5 = _____
13.	10 – 2 = _____	28.	5 = 9 – _____
14.	10 – 8 = _____	29.	9 – 6 = _____ – 5
15.	_____ + 8 = 10	30.	_____ – 6 = 9 – 7

0	1	2	3
4	5	6	7
8	9	10	5
=	+	+	−

numeral cards

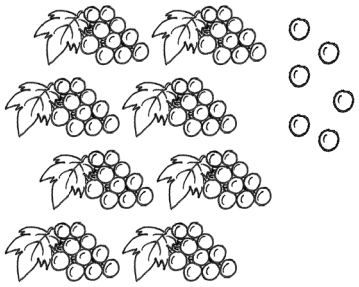
Name _____ Date _____

Write the tens and ones. Complete the statement.

1. 

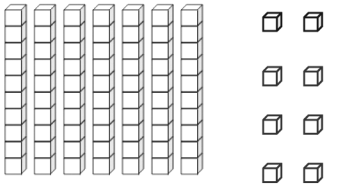
tens	ones

43 = _____ tens _____ ones

2. 

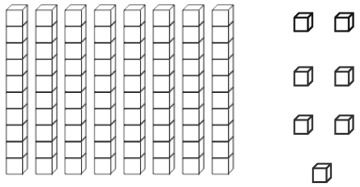
tens	ones

_____ = _____ tens _____ ones

3. 

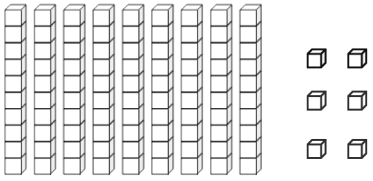
tens	ones

There are _____ cubes.

4. 

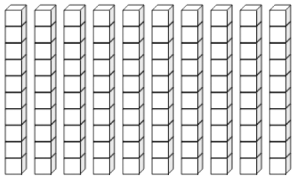
tens	ones

There are _____ cubes.

5. 

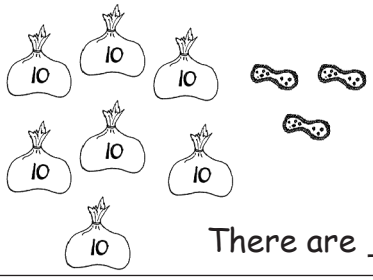
tens	ones

There are _____ cubes.

6. 

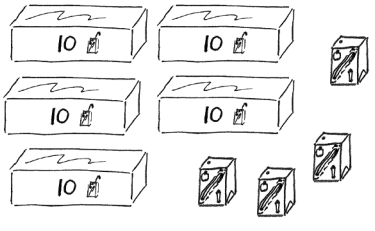
tens	ones

There are _____ cubes.

7. 

tens	ones

There are _____ peanuts.

8. 

tens	ones

There are _____ juice boxes.

9. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 40

tens	ones

b. 46

tens	ones

c. ____

tens	ones
5	9

d. ____

tens	ones
9	5

e. 75

tens	ones

f. 70

tens	ones

g. 60

tens	ones

h. ____

tens	ones
8	0

i. ____

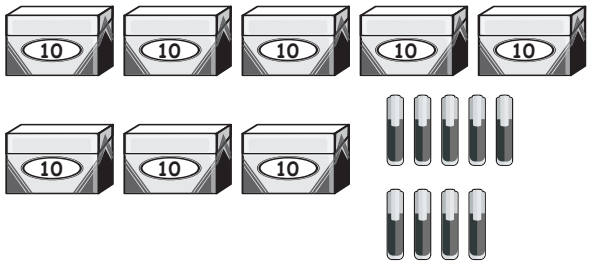
tens	ones
5	5

j. ____

tens	ones
10	0

Name _____ Date _____

1. Write the tens and ones. Complete the statement.



tens	ones

There are _____ markers.

2. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 90

tens	ones

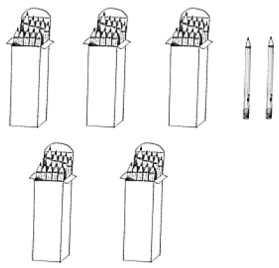
b. _____

tens	ones
8	7

Name _____ Date _____

Write the tens and ones. Complete the statement.

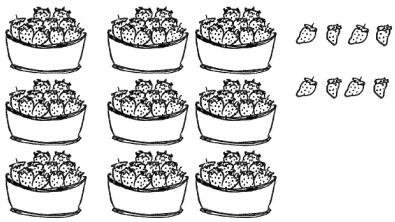
1.



tens	ones

52 = _____ tens _____ ones

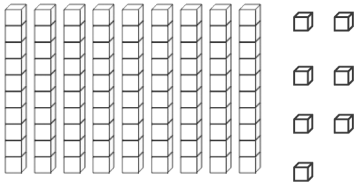
2.



tens	ones

_____ = _____ tens _____ ones

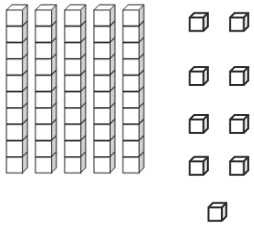
3.



tens	ones

There are _____ cubes.

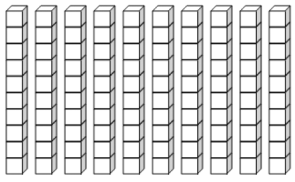
4.



tens	ones

There are _____ cubes.

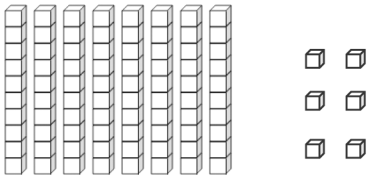
5.



tens	ones

There are _____ cubes.

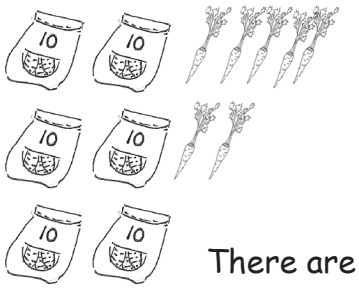
6.



tens	ones

There are _____ cubes.

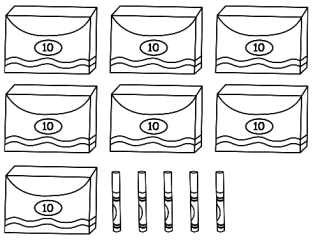
7.



tens	ones

There are _____ carrots.

8.



tens	ones

There are _____ markers.

9. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 70

tens	ones

b. 76

tens	ones

c. _____

tens	ones
4	9

d. _____

tens	ones
9	4

e. 65

tens	ones

f. 60

tens	ones

g. 90

tens	ones

h. _____

tens	ones
10	0

i. _____

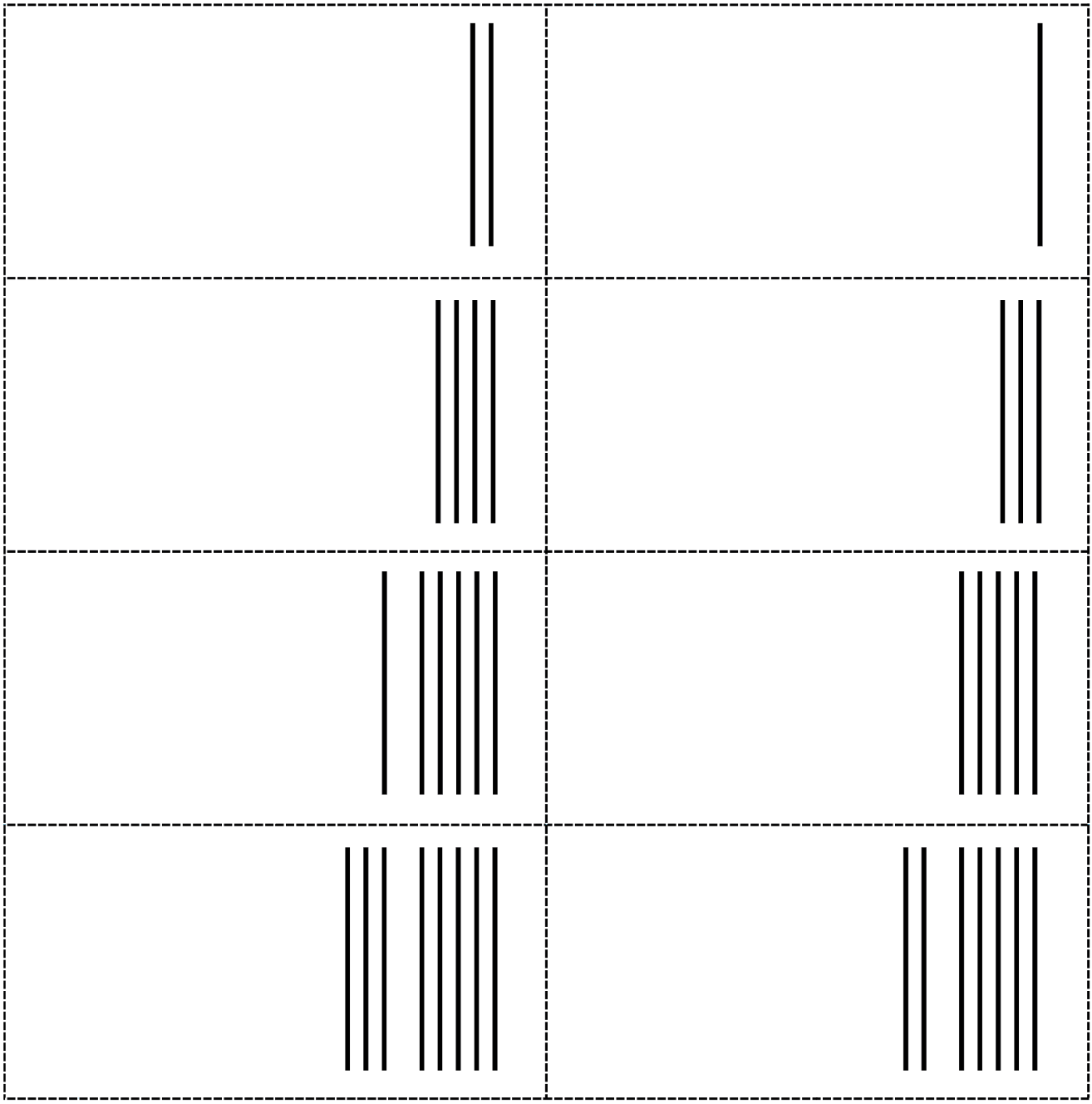
tens	ones
8	3

j. _____

tens	ones
8	0

10	20
30	40
50	60
70	80

Hide Zero cards, numeral side. Copy double-sided, and replace the cards from Module 4.

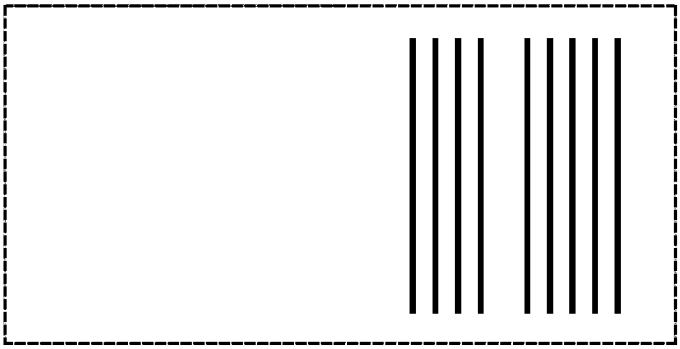


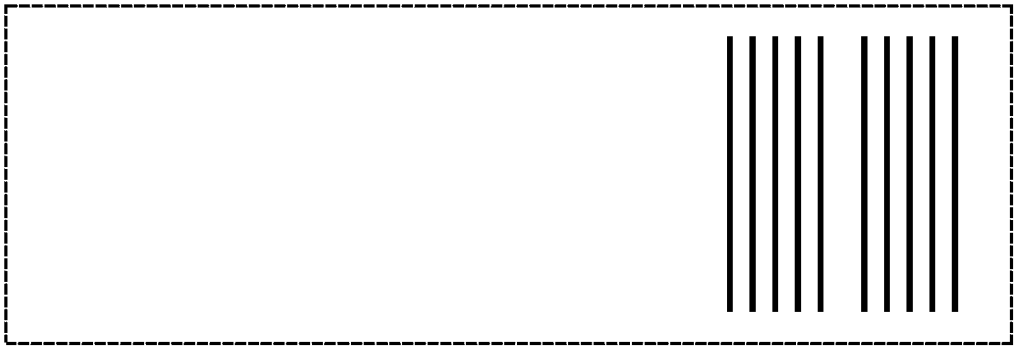
Hide Zero cards, quick tens side. Copy double-sided, and replace the cards from Module 4.

9 0

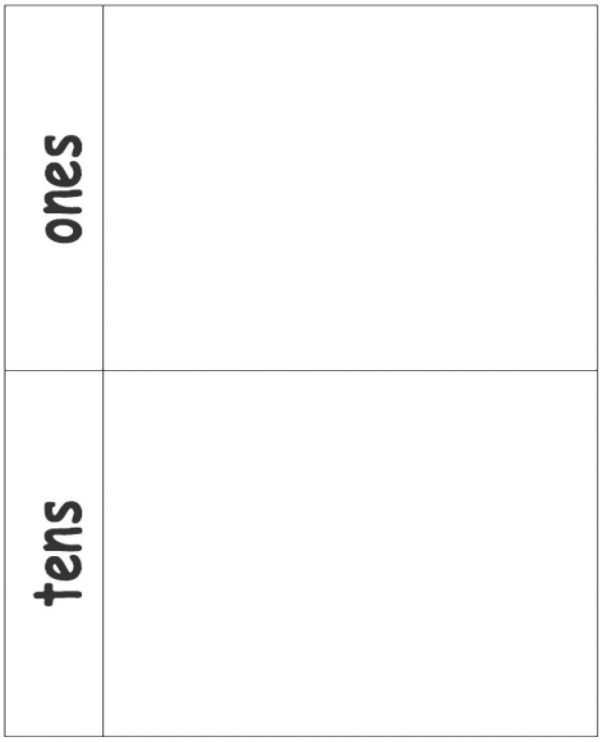
1 0 0

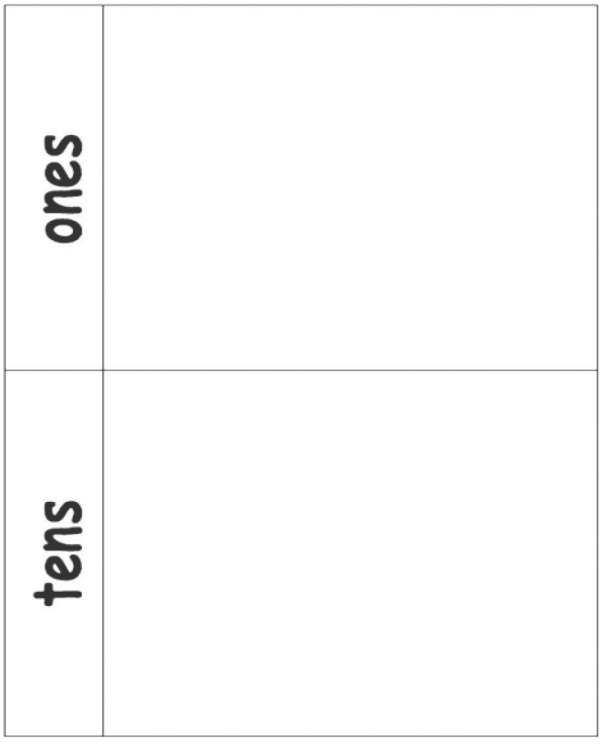
Hide Zero cards, numeral side. Copy double-sided, and replace the cards from Module 4.





Hide Zero cards, quick tens side. Copy double-sided, and replace the cards from Module 4.





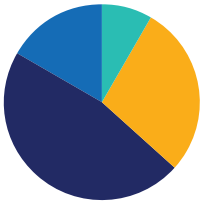
place value chart

Lesson 4

Objective: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

Suggested Lesson Structure

Fluency Practice	(17 minutes)
Application Problem	(5 minutes)
Concept Development	(28 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (17 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Digit Detective **1.2A** (4 minutes)
- Tens and Ones **1.2A** (3 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Based on the needs of the class, select a Sprint from Lesson 3. There are two options available.

1. Administer the next Sprint in the sequence.
2. Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Hopefully, the daily Sprints and Practice Sets are helping students to make good progress toward becoming proficient in the required Fluency for Grade 1. Support students who regularly finish fewer than half of the problems on a Sprint. Take note of the problem types that slow them down. Perhaps send the next day's Sprint home with them the night prior to administration. Awareness of a student's areas of growth facilitates targeted support from within the learning community. For example, a volunteer could support with helping a certain student gain fluency with subtracting 3 from numbers within 10.

Digit Detective (4 minutes)

Materials: (T/S) Personal white board

Note: This activity reviews place value for two-digit numbers to 100. Allow students to use their personal white boards to record the mystery numbers as needed.

Write a number on your personal white board, but do not show students.

T: The digit in the tens place is 2. The digit in the ones place is 1. What's my number?
S: 21.
T: What's the value of the 2? (Pause, and then signal.)
S: 20.
T: What's the value of the 1? (Pause, and then signal.)
S: 1.
T: (Reveal the number.)

Repeat with the following suggested sequence: 12, 45, 54, 63, 87, 78, and 92. Alternate saying the number in the ones place first and saying the number in the tens place first. For the last minute, challenge students with adding or subtracting clues for mystery numbers between 40 and 99 as in the examples below.

T: The digit in the tens place is 1 more than 3. (Pause.) The digit in the ones place is 10 less than 12. Say the number the Say Ten way.
S: 4 tens 2.
T: The digit in the ones place is equal to 5 + 3. The digit in the tens place is equal to 10 – 5. Say the number the Say Ten way.
S: 5 tens 8.
T: (Reveal the number.)

Tens and Ones (3 minutes)

Materials: (T) Rekenrek

Note: Reviewing this Module 4 fluency activity prepares students for today's lesson.

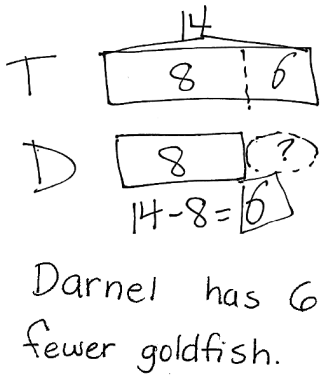
Practice decomposing numbers into tens and ones using the Rekenrek.

T: (Show 16 on the Rekenrek.) How many tens do you see?
S: 1.
T: How many ones?
S: 6.
T: Say the number the Say Ten way.
S: Ten 6.
T: 1 ten plus 6 ones is …?
S: 16.

Slide over the next row, and repeat the process for 26 and 36. Continue with the following suggested sequence within 40: 15, 25, 35, 17, 27, 37, 19, 29, and 39.

Application Problem (5 minutes)

Tamra has 14 goldfish. Darnel has 8 goldfish. How many fewer goldfish does Darnel have than Tamra?



Note: Today's Application Problem presents a *compare with difference unknown* problem type. Continue to ask students the following questions:

- Can you draw something?
- What can you draw?
- What does your drawing show you that can help answer the question?

Concept Development (28 minutes)

Materials: (T) Chart paper with a place value chart, Hide Zero cards (Lesson 3 Template 1) (S) Personal white board, place value chart (Lesson 3 Template 2), numeral cards (Lesson 3 Fluency Template)

Gather students in the meeting area in a semicircle formation with their personal white boards.

T: (Show 78 with Hide Zero cards.) When I pull apart these Hide Zero cards, what two numbers will you see?

S: 70 and 8.

T: (Pull apart the Hide Zero cards.) How many tens are in 70? Record the tens in your place value chart.

S: 7 tens. (Write 7 in the tens place.)

T: How many ones are here? (Show the 8 card.) Fill in the rest of your place value chart.

S: 8 ones. (Write 8 in the ones place.)

T: Say this number as tens and ones.

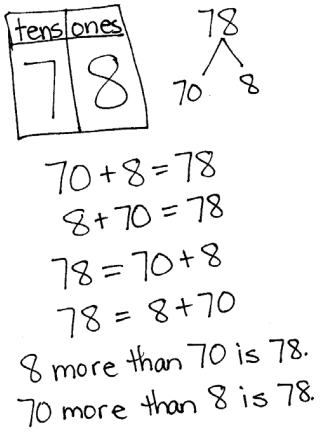
S: 7 tens 8 ones.

T: 7 tens and 8 ones is the same as …?

S: 78.

T: On your personal white board, make a number bond that shows the tens and the ones.

S: (Break apart 78 into 70 and 8.)



T: (Record the number bond on the chart.) Write as many addition sentences as you can that use your number bond.

Circulate and ensure that students are only using the three numbers from this bond: 78, 70, and 8. If students begin writing subtraction sentences, remind them of the directions. The teacher may choose to

challenge some students to consider subtraction sentences, but these sentences are not addressed during the course of the lesson.

T: Give me a number sentence that matches this number bond. Start with the part that represents the tens. (Record on the chart as students answer.)

S: 70 + 8 = 78.

T: Start your number sentence with the ones. (Record on the chart.)

S: 8 + 70 = 78.

T: 78 is the same as…?

S: 70 plus 8. (Write 78 = 70 + 8 as students answer.)

T: This time, start with the ones. 78 is the same as…?

S: 8 plus 70. (Write 78 = 8 + 70 as students answer.)

T: Talk to your partner. What do you notice about the addends in all of these number sentences?

S: 70 is a bigger number than 8. → They always say how many tens and ones make up the total. → You can switch the addends around, and the total is still the same.

T: Let's make some *more than* statements. 8 more than 70 is…? Say the whole sentence.

S: 8 more than 70 is 78. (Record on the chart.)

T: 70 more than 8 is…? Say the whole sentence.

S: 70 more than 8 is 78. (Record on the chart.)

Repeat the process following the suggested sequence: 54, 62, 75, 57, 83, 91, and 100. Use different language to elicit a variety of answers for each number. For example, 54 is the same as____, 50 plus 4 is_____, 5 tens and 4 ones is____, 4 more than 50 is____, and 50 more than 4 is ____.

For the remainder of time, have partners play Combine Tens and Ones. Leave the chart for 78 up on the board as a reference to support students.

- Prepare two decks of numeral cards 0 through 9 for each pair.
- Pick a card from the first deck. This number is placed in the tens place on the place value chart. For example, 7 is drawn and placed in the tens place.

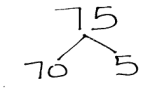
NOTES ON MULTIPLE MEANS OF EXPRESSION:

Students, including some emergent bilingual students, may need additional support with the language of "___ is the same as ___," "___ is ___ more than ___," etc. Insert a sentence frame into the personal white board, and allow the student to fill in the blanks. Pointing to each word and number as it is read can provide a bridge between the concrete and the abstract.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

When playing games with students, modeling how the game is played is very important. Oral instructions alone do not help everyone in the class understand how the game is played. Have two students demonstrate Partner A and Partner B roles so that all students see and hear the way the game is played.

- Pick a card from the second deck. This number is placed in the ones place on the place value chart.
  For example, 5 is drawn and placed in the ones place.
- Partners A and B make a number bond decomposing the number into tens and ones.
- Partner A writes two addition number sentences, such as those in the image from the previous page.
- Partner B writes a *more than* statement that combines tens and ones, such as those in the image on the previous page.
- Switch roles for the next pair of cards drawn.



70+5=75
5+70=75
75=70+5
75=5+70

70 more than 5 is 75.
5 more than 70 is 75.
75 is 5 more than 70.
75 is 70 more than 5.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

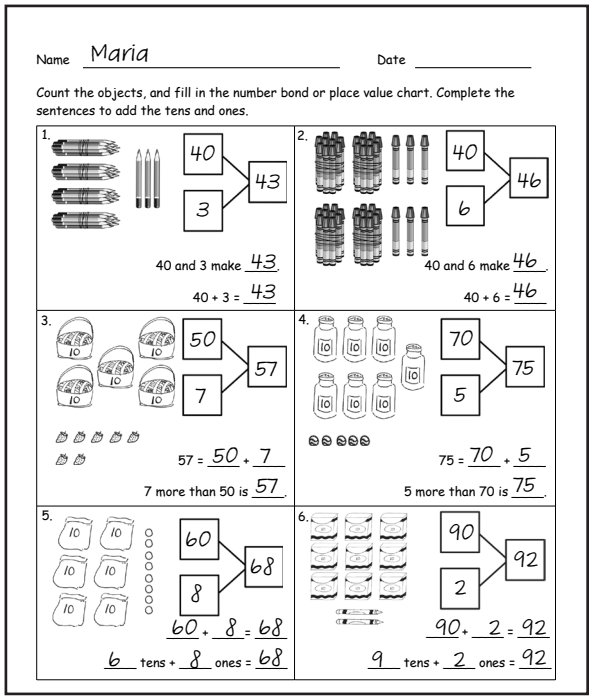
Lesson Objective: Write and interpret two-digit numbers to 100 as addition sentences that combine tens and ones.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- For Problems 3 and 4, even though the totals use the same digits, the value of each answer is different. Explain why this is so.
- Look at Problem 10. How many tens make up 100? How can you express 100 as all ones?
- Look at Problem 1. If we unbundled one of the tens, how many tens and ones will we have?


Name Maria Date

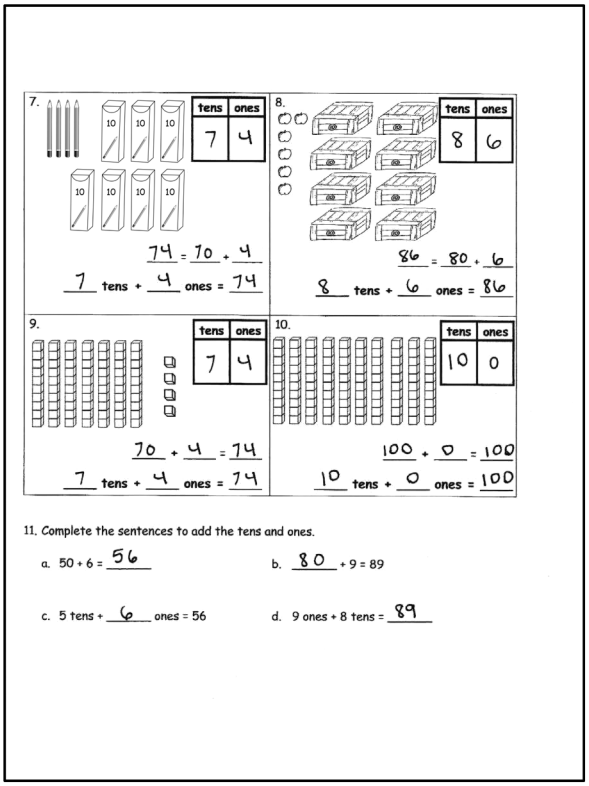
Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.

1. 40, 3, 43
   40 and 3 make 43.
   40 + 3 = 43
2. 40, 6, 46
   40 and 6 make 46.
   40 + 6 = 46
3. 50, 7, 57
   57 = 50 + 7
   7 more than 50 is 57.
4. 70, 5, 75
   75 = 70 + 5
   5 more than 70 is 75.
5. 60, 8, 68
   60 + 8 = 68
   6 tens + 8 ones = 68
6. 90, 2, 92
   90 + 2 = 92
   9 tens + 2 ones = 92

- Look at Problems 3, 4, and 5. What do you think are in the baskets? In the bottles? In the bags? What makes you think this?
- How did today's fluency activities connect with today's lesson?
- How did you solve the Application Problem? What other problems did this one remind you of?

Exit Ticket (3 minutes)

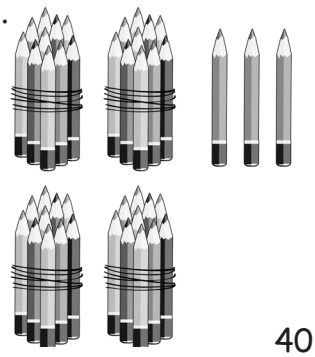
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____ Date _____

Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.

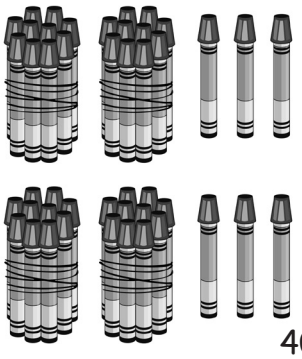
1.



40 and 3 make _____.

40 + 3 = _____

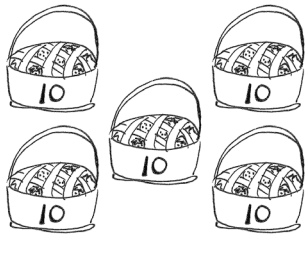
2.



40 and 6 make _____.

40 + 6 = _____

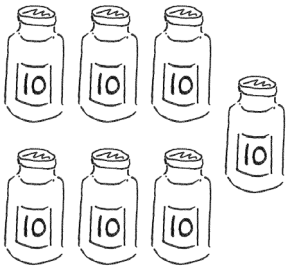
3.



57 = _____ + _____

7 more than 50 is _____.

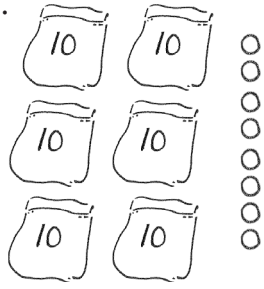
4.



75 = _____ + _____

5 more than 70 is _____.

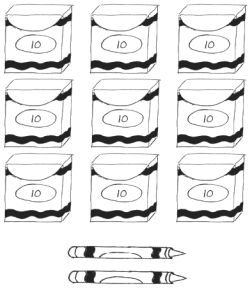
5.



_____ + _____ = _____

_____ tens + _____ ones = _____

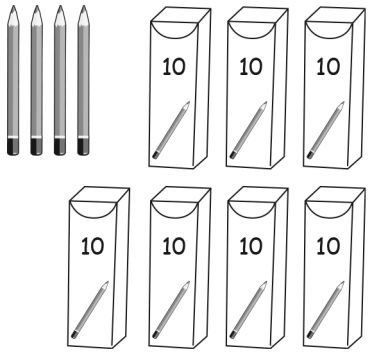
6.



_____ + _____ = _____

_____ tens + _____ ones = _____

7.

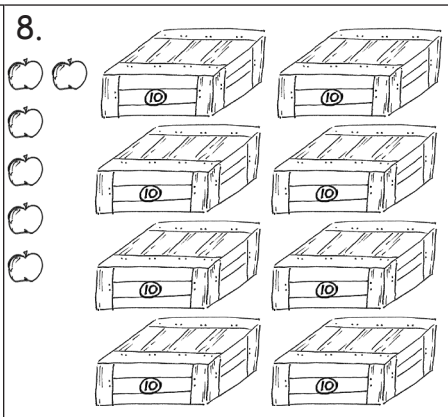


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

8.

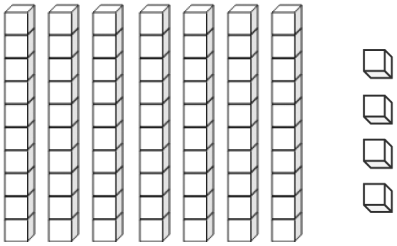


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

9.

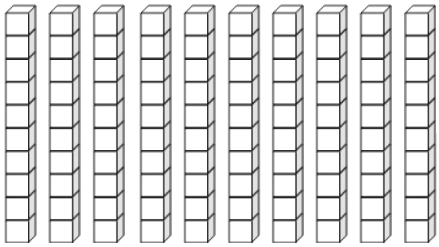


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

10.



tens	ones
	0

_____ + _____ = _____

_____ tens + _____ ones = _____

11. Complete the sentences to add the tens and ones.

a. 50 + 6 = _____

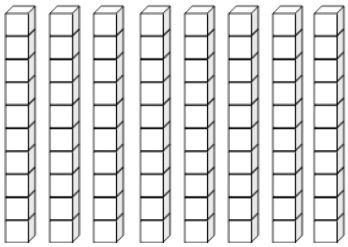
b. _____ + 9 = 89

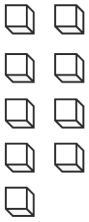
c. 5 tens + _____ ones = 56

d. 9 ones + 8 tens = _____

Name _____ Date _____

1. Count the objects, and fill in the place value chart. Complete the sentences to add the tens and ones.





tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

2. Complete the sentences to add the tens and ones.

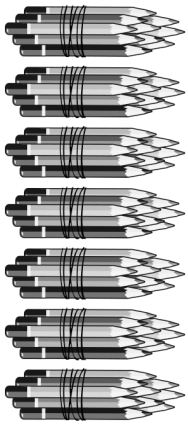
a. 90 + 2 = _____

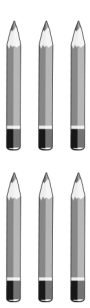
b. 7 tens + _____ ones = 79

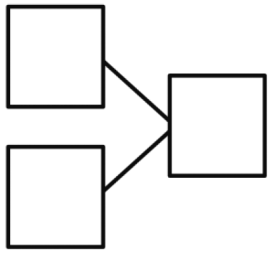
Name _____ Date _____

Count the objects, and fill in the number bond or place value chart. Complete the sentences to add the tens and ones.

1.



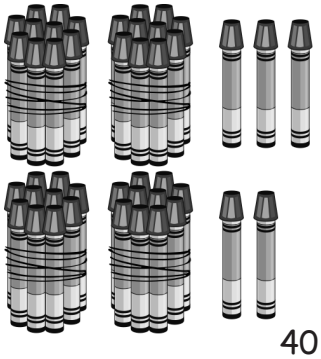


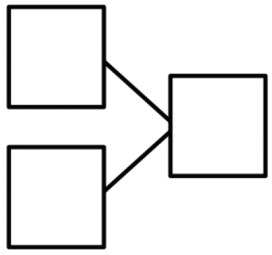


70 and 6 make _____.

70 + 6 = _____

2.

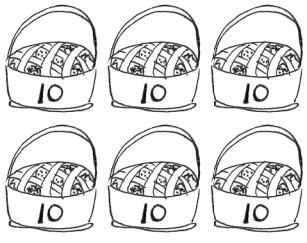


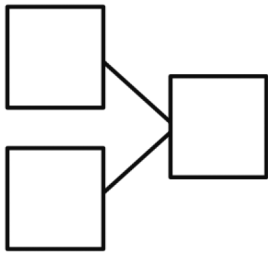


40 and 5 make _____.

40 + 5 = _____

3.

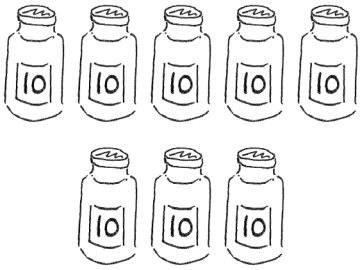


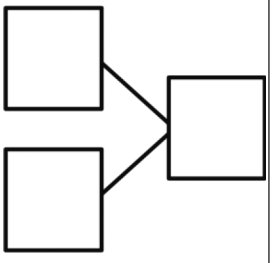


69 = _____ + _____

9 more than 60 is _____.

4.

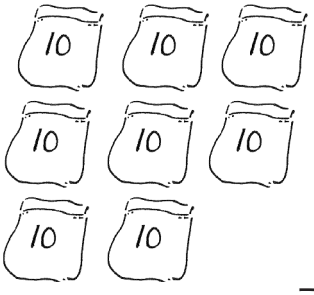


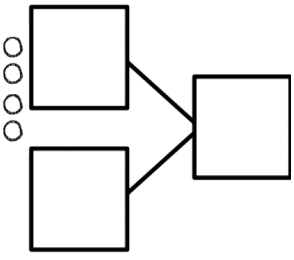


87 = _____ + _____

7 more than 80 is _____.

5.

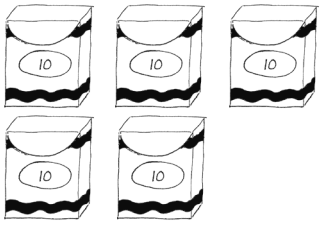


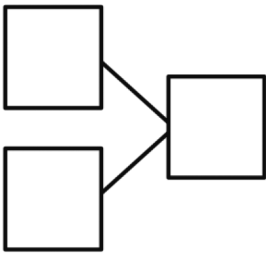


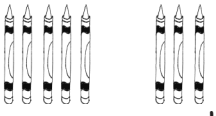
_____ + _____=_____

_____ tens + _____ ones = _____

6.



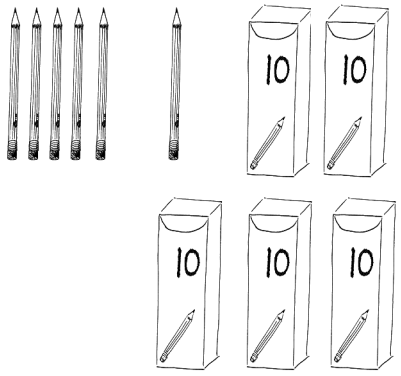




_____ + _____ = _____

_____ tens + _____ ones = _____

7.

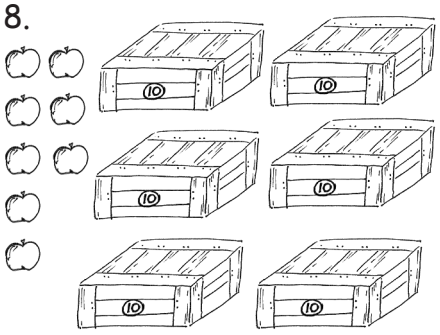


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

8.

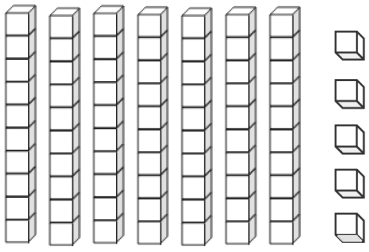


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

9.

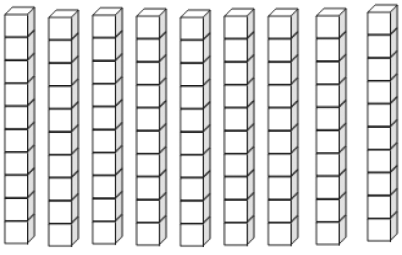


tens	ones

_____ + _____ = _____

_____ tens + _____ ones = _____

10.



tens	ones
	0

_____ + _____ = _____

_____ tens + _____ ones = _____

11. Complete the sentences to add the tens and ones.

a. 80 + 6 = _____

b. _____ + 7 = 57

c. 9 tens + _____ ones = 95

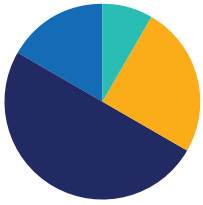
d. 4 ones + 8 tens = _____

Lesson 5

Objective: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- True or False Number Sentences **1.2G, 1.3D, 1.5E** (5 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose an appropriate Sprint based on the needs of the class. As students work, pay attention to their strategies and the number of problems they answer. Today, between Sides A and B of the Sprint, practice counting the Say Ten way up and down from 67 to 77.

Fluency Sprint List:

- Addition Sprint 1 (targeting addition and missing addends)
- Addition Sprint 2 (targeting the most challenging addition within 10 and beyond 10)
- Subtraction Sprint (targeting subtraction)
- Fluency Sprint: Totals of 5, 6, and 7 (developing understanding of the relationship between addition and subtraction)
- Fluency Sprint: Totals of 8, 9, and 10 (developing understanding of the relationship between addition and subtraction)

True or False Number Sentences (5 minutes)

Materials: (T/S) Personal white board

Review the symbols =, >, and <. Write true and false number sentences using the symbols. Signal, and then wait for students to say whether the number sentence is true or false. Choose a student who answered correctly to prove it.

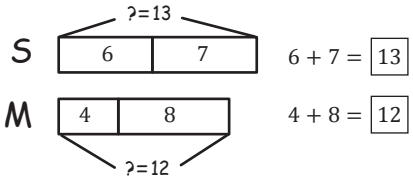
Use the first two columns as the suggested sequence. At each checkpoint, decide whether students are ready for the next column or if they should continue with similar problem types. The third column is provided as a possible opportunity for a few students who would really enjoy a challenge.

a. $5 > 4$	e. $30 + 5 = 35$	i. $9 + 8 = 10 + 7$
b. $50 > 40$	f. $53 = 5 + 30$	j. $15 + 10 = 25 - 10$
c. $45 > 54$	g. $73 < 7$ tens 3 ones	k. $14 - 7 > 9$
d. $15 < 41$	h. $94 > 9$ ones 3 tens	l. $80 < 79 + 1$
Checkpoint.	Checkpoint.	

Application Problem (5 minutes)

Shanika has 6 roses and 7 tulips in a vase. Maria has 4 roses and 8 tulips in a vase. Who has more flowers? How many more flowers does she have?

Note: Today's problem embeds an opportunity for comparison. Students continue to practice adding across ten, which supports their work in Topic C.



$13 > 12$ **Shanika has 1 more flower.**

Concept Development (30 minutes)

Materials: (T), A container of 200 or more connecting cubes, place value chart (Template 1), vertical counting sequence (Template 2), Hide Zero cards (Lesson 3 Template 1) (S) Hide Zero cards (optional)

Invite students to sit in a half-circle on the carpet. Place a container of 200 connecting cubes on the floor.

T: Over the next few days, we will work with numbers 100 and beyond. To prepare, let's see what 100 looks like. (Ask for a volunteer.) Student A, you are going to estimate 100. Scoop a pile of connecting cubes onto the carpet. Without counting, stop scooping when you think you have 100 cubes.

S: (Scoops a handful of cubes without counting.)

T: Now, we will count to see if Student A's estimate was close to 100. We will use a place value chart (Template 1) to help. Each time we get to a group of 10, we will connect the cubes and move them to the tens place.

S: (Class counts connecting cubes up to 99 until they have 9 tens and 9 ones on the place value chart.)

T: Pause. Does anyone know what comes after 99?

S: 100.

T: (Add one more connecting cube.) Yes. Let's say it together!

S: 100!

T: Something special happens when we have 100 cubes. What do you notice about our place value chart?

S: There's an extra place. → There's a hundreds place.

T: Whenever we have 100 objects, we group them together to make a hundred and move them to the hundreds place. How many tens did it take to make 100?

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, ..., 10!

T: Ten groups of ten is equal to 100.

Note: If Student A had less than 100, pause to discuss their estimate when you run out of cubes. Then, continue adding cubes until you reach 100. If Student A made a pile greater than 100, stop counting at 100. Discuss Student A's estimate. Remind students estimates are "best guesses" and it is alright to not be exact.

During the remainder of the lesson, have students sit at their desks at the start of the lesson. If students are using Hide Zero cards, distribute cards up to 9 tens. Hold students' 10 tens card until later in the lesson. The 11 tens and 12 tens cards are not needed for today's lesson.

T: (Project the vertical counting sequence template, preferably on an interactive board or easel paper.) This chart shows numbers from 1 through 77. Can you help me write more numbers until we fill up all of the empty spaces?

S: (Write the numbers on the chart as students count.) 79, 80, 81, 82, ..., 100.

T: We have more spaces on the chart. Who knows what number comes after 100?

S: One hundred one.

T: Yes. One hundred one (101), one hundred two (102), ..., (120). (Be sure to read the number without saying *and* between one hundred and the ones place unit.)

T: These last two columns look a little like other columns on the chart. Does anyone see what I see?

S: The first two columns have most of the same digits.

T: Let's look more closely at these columns. (If using an interactive board, highlight numbers 1 through 20 and numbers 101 through 120.) Talk with a partner about what you notice. (Circulate and listen as students discuss.)

S: I notice that there is a 1, 2, 3, 4, ... all the way to 20 at the beginning of this chart and at the end of this chart. → The pattern goes to 100 and starts over again, but you can't forget to include 100 each time as you say the new numbers. → Once you get to 100, the numbers start over

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Challenge students who seem confident with this skill to start at 120 and complete their chart by counting back.

again, only this time you say 100 first. So instead of 1, 2, 3, 4, it's 101, 102, 103, and 104.

T: Let's try this again with Hide Zero cards and see if we can tell what's happening. I'm going to give you a new Hide Zero card. This one has 10 tens. (Distribute 10 tens card.)

T: When we get to 100, the next number is …?

S: 101.

T: Point to the ones place on your hundred card.

S: (Students point.)

T: Place one on top of your 100 card in the ones place. What number did you make?

S: One hundred one!

T: Yes! It looks like a zero sandwich with the ones as the bread. What number is that again?

S: One hundred one!

T: Now, let's add another one. 100, 101, …?

S: 102.

T: Which card did you need to show 102?

S: Our 100 card and a 2.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Consider providing a vertical counting sequence as a reference to support students, including some emergent bilingual students, who need more proficiency practice with the numbers to 120.

Repeat this process until the class reaches 120. Then, as a class, count down either verbally as the teacher points to the numbers on the chart displayed or as students create the numbers with their Hide Zero cards, until reaching 88.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

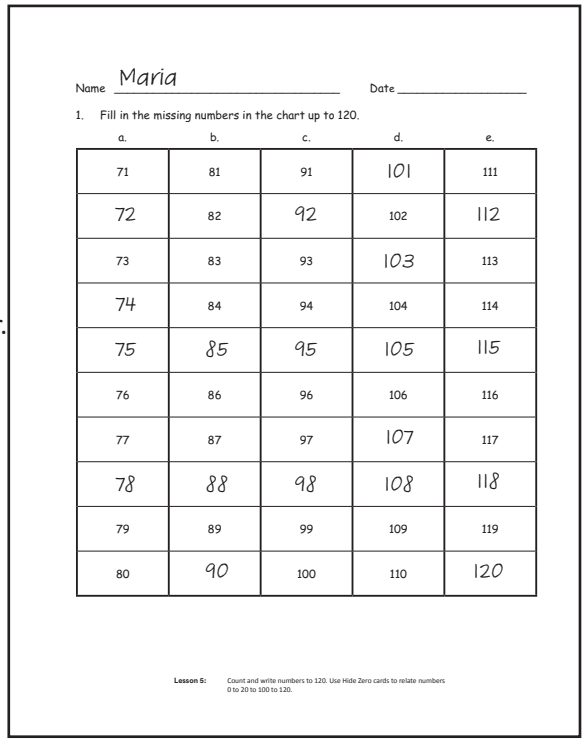
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. What are some patterns you notice in the chart?
- Look at Problem 4. Which sequences were the quickest for you to solve? Why? Which sequences were trickier? On your personal white board, create a really tricky problem for your partner. What did you do to make it tricky to solve? What strategies might you use to solve it correctly?
- Share the progress you have made with your work with Sprints. Tell us about the math accomplishments you are proud of.
- Look at your Application Problem. Share your strategies for solving the problem.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

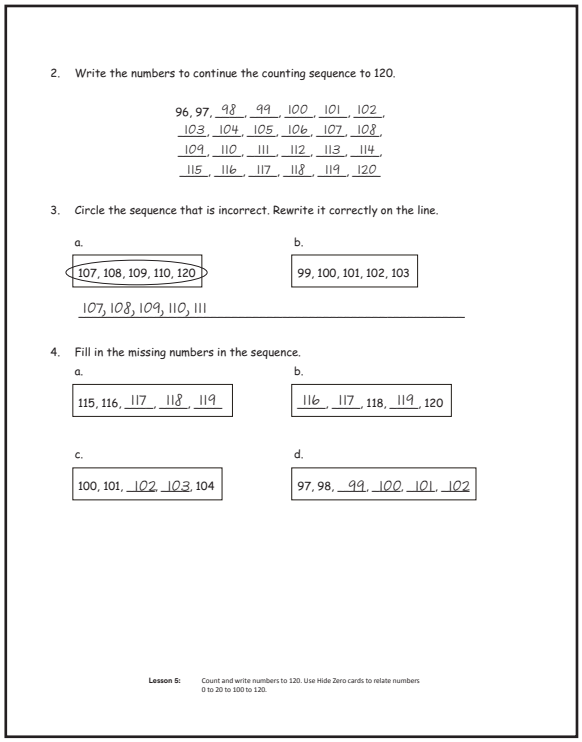


Name Maria Date

1. Fill in the missing numbers in the chart up to 120.

a.	b.	c.	d.	e.
71	81	91	101	111
72	82	92	102	112
73	83	93	103	113
74	84	94	104	114
75	85	95	105	115
76	86	96	106	116
77	87	97	107	117
78	88	98	108	118
79	89	99	109	119
80	90	100	110	120

Lesson 5: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.



2. Write the numbers to continue the counting sequence to 120.

96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120

3. Circle the sequence that is incorrect. Rewrite it correctly on the line.

a. 107, 108, 109, 110, 120

b. 99, 100, 101, 102, 103

107, 108, 109, 110, 111

4. Fill in the missing numbers in the sequence.

a. 115, 116, 117, 118, 119

b. 116, 117, 118, 119, 120

c. 100, 101, 102, 103, 104

d. 97, 98, 99, 100, 101, 102

Lesson 5: Count and write numbers to 120. Use Hide Zero cards to relate numbers 0 to 20 to 100 to 120.

Name _____ Date _____

1. Fill in the missing numbers in the chart up to 120.

a.	b.	c.	d.	e.
71	81	91		111
	82		102	
73	83	93		113
	84	94	104	114
76	86	96	106	116
77	87	97		117
79	89	99	109	119
80		100	110	

2. Write the numbers to continue the counting sequence to 120.

96, 97, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____

3. Circle the sequence that is incorrect. Rewrite it correctly on the line.

a. 107, 108, 109, 110, 120

b. 99, 100, 101, 102, 103

_____

4. Fill in the missing numbers in the sequence.

a. 115, 116, _____, _____, _____

b. _____, _____, 118, _____, 120

c. 100, 101, _____, _____, 104

d. 97, 98, _____, _____, _____, _____

Name _____ Date _____

1. Complete the chart by filling in the missing numbers.

a.

88
90

b.

99

c.

108

d.

119

2. Fill in the missing numbers to continue the counting sequence.

a. 117, _____, 119, _____

b. 108, 109, _____, _____, _____

Name _____ Date _____

1. Fill in the missing numbers in the chart up to 120.

a.	b.	c.	d.	e.
71		91		111
	82		102	
		93		113
74				114
	85		105	
		96		116
	87			
			108	
79		99		119
80	90		110	

2. Write the numbers to continue the counting sequence to 120.

99, _____, 101, _____, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____, _____,
_____, _____, _____, _____, _____, _____

3. Circle the sequence that is incorrect. Rewrite it correctly on the line.

a. 116, 117, 118, 119, 120

b. 96, 97, 98, 99, 100, 110

_____

4. Fill in the missing numbers in the sequence.

a. 113, 114, _____, _____, _____

b. _____, _____, _____, 120

c. 102, _____, _____, _____

d. 88, 89, _____, _____, _____, _____

Ones	
Tens	
Hundreds	

place value chart (To be used during today's Concept Development.)

1	11	21	31	41	51	61	71	81	91	101	111
2	12	22	32	42	52	62	72	82	92	102	112
3	13	23	33	43	53	63	73	83	93	103	113
4	14	24	34	44	54	64	74	84	94	104	114
5	15	25	35	45	55	65	75	85	95	105	115
6	16	26	36	46	56	66	76	86	96	106	116
7	17	27	37	47	57	67	77	87	97	107	117
8	18	28	38	48	58	68	78	88	98	108	118
9	19	29	39	49	59	69	79	89	99	109	119
10	20	30	40	50	60	70	80	90	100	110	120

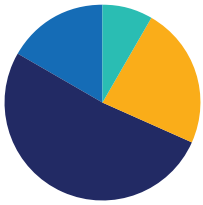
vertical counting sequence

Lesson 6

Objective: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart.

Suggested Lesson Structure

Fluency Practice	(14 minutes)
Application Problem	(5 minutes)
Concept Development	(31 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (14 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- 1 More, 1 Less, 10 More, 10 Less **1.5A, 1.5C** (4 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Select a Sprint based on the needs of the class. There are two options available.

- Administer the next Sprint in the sequence.
- Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Today, between Sides A and B of the Sprint, practice counting the Say Ten way from 88 to 99 and back.

1 More, 1 Less, 10 More, 10 Less (4 minutes)

Materials: (T) Vertical counting sequence (Lesson 5 Template)

Note: This fluency activity reviews the grade-level standard of mentally finding 10 more or 10 less than a number without having to count.

Display the vertical counting sequence chart for reference.

T: Say the number that is 1 more. 5. (Pause, and then signal.)

S: 6.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students may need practice writing the number after they mentally find 1 or 10 more or less. As an alternative have them write the numbers instead of saying them.

T: 15. (Pause, and then signal.)

S: 16.

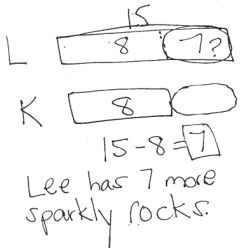
Continue with the following suggested sequence, as time permits: 55, 75, 105, 115; 67, 97, 107; 9, 49, 99, 109, 119.

Repeat for 10 more:	Repeat for 10 less:	Repeat for 1 less:
10, 40, 90, 100	20, 50, 70	4, 14, 84
3, 23, 63	45, 65, 95	8, 38, 88
56, 86, 96	88, 118, 108	10, 70, 120

Application Problem (5 minutes)

Lee found 15 sparkly rocks. Kim found 8 sparkly rocks. How many more sparkly rocks did Lee find than Kim?

Note: Today's Application Problem is a *compare with difference unknown* problem type. For students who are successful with solving this problem when the term *more* is used, consider adjusting the question to ask how many *fewer* sparkly rocks Kim found. By asking both questions, the teacher can help students recognize that the same solution sentence can be used with either question.



Concept Development (31 minutes)

Materials: (T) 100-bead Rekenrek and 20-bead Rekenrek (if available), place value chart (Lesson 3 Template 2), personal white board, document camera (S) Place value chart (Lesson 3 Template 2), personal white board

Note: If the 20-bead Rekenrek is not available, draw two rows of large dots (5 white and 5 red in each row) on chart paper to represent two more rows of beads. Along with the bead sets, put the place value chart in a personal white board under the document camera, or put an image of the place value chart on an interactive board.

Gather students in the meeting area for today's lesson.

T: You did a great job with counting the Say Ten way between the two Sprints today. Let's count by tens the Say Ten way. (Move the beads over on the Rekenrek as students count.)

S: 1 ten, 2 tens, 3 tens, …, 9 tens, 10 tens.

T: (Write 10 in the tens position on the place value chart.) Since we were only counting tens, there are no additional ones, just 10 tens. (Write 0 in the ones position on the place value chart.)

T: 10 tens is the same as …?

S: 100.

T: What if I add 1 more bead? (Hold up the 20-bead Rekenrek, and slide 1 bead over.) Do I still have 10 tens?

S: Yes!

T: But I also have…?

S: 1 one.

T: I need a volunteer to change our place value chart to show 10 tens and 1 one. (Select a student, and wait as she erases 0 in the ones position and writes 1.)

T: 10 tens 1 one is…?

S: 101. (Some students may say one hundred *and* one. If they do, explain that 100 + 1 describes 100 *and* 1, but the *name* of the number is one hundred one. This is similar to naming other numbers, such as 25. Twenty *and* 5 is written 20 + 5. To say the number, we say twenty-five.

T: We had 10 tens and then 10 tens 1. Next, we would have…? (Move another bead on the 20-bead Rekenrek.)

S: 10 tens 2.

T: Let's change our place value charts to record the tens and ones.

T: 10 tens 2 is the same as…?

S: 102.

T: Let's see. 100, 101, 102. Next would be…? (Slide a third bead.)

S: 103.

T: How many tens and ones are in 103? Let's change our place value charts to record the tens and ones.

T: Let's count together starting at 98. Listen for when I say to stop.

S/T: (Count together without the Rekenrek.) 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109.

T: Stop!

T: How many tens and ones are in 109? Talk with a partner. Let's show that many on the Rekenrek, and record it on your place value chart. (Circulate and notice students' recordings.)

T: Let's look at the Rekenrek. It shows how many tens?

S: 10 tens!

T: It shows how many additional ones?

S: 9 ones!

T: What if we slide over one more bead? How many tens would we have then?

S: 11 tens!

T: (Slide over one more bead so that the Rekenreks now show 11 tens.) Write this amount on your place value chart. Tell your partner what number has 11 tens. (Wait as students complete the task.)

T: 11 tens is the same as…?

S: One hundred ten!

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

If some students need more support, including some emergent bilingual students, have them ook at the Rekenreks as they count. This visual support will help them to identify the number of tens and then the number of additional ones.

Repeat the process, having students count from a given number and stop at a given number. Students identify the number in both its traditional form and its unit form. A suggested sequence would be 97 to 103, 108 to 112, and 108 to 120. Alternate between saying numbers the regular way and the Say Ten way. If students need more practice, the following partner activity may be used.

- Partner A uses quick tens and ones to draw a number between or including 100 and 120.
- Partner B records the number in the place value chart while Partner A writes the number below his drawing.
- The two partners check that they have matching numbers and then switch roles to start again.

Problem Set (10 minutes)

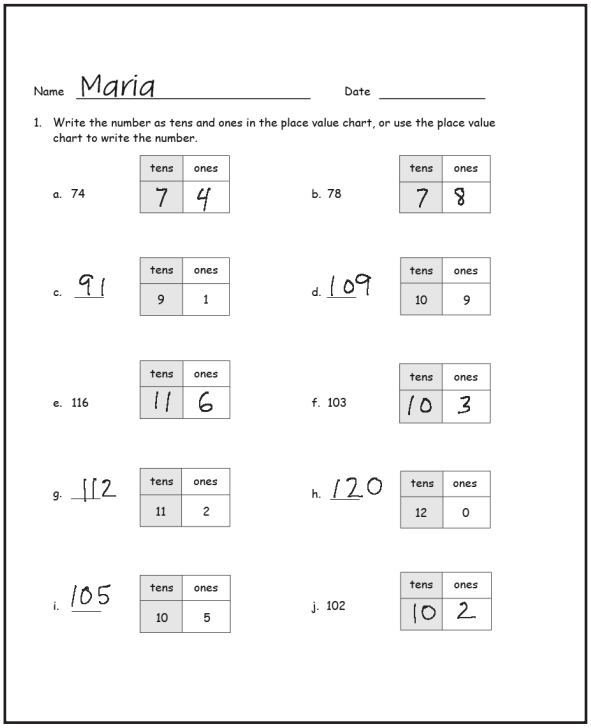
Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Count to 120 in unit form using only tens and ones. Represent numbers to 120 as tens and ones on the place value chart.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.



Name Maria Date

1. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 74

tens	ones
7	4

b. 78

tens	ones
7	8

c. 91

tens	ones
9	1

d. 109

tens	ones
10	9

e. 116

tens	ones
11	6

f. 103

tens	ones
10	3

g. 112

tens	ones
11	2

h. 120

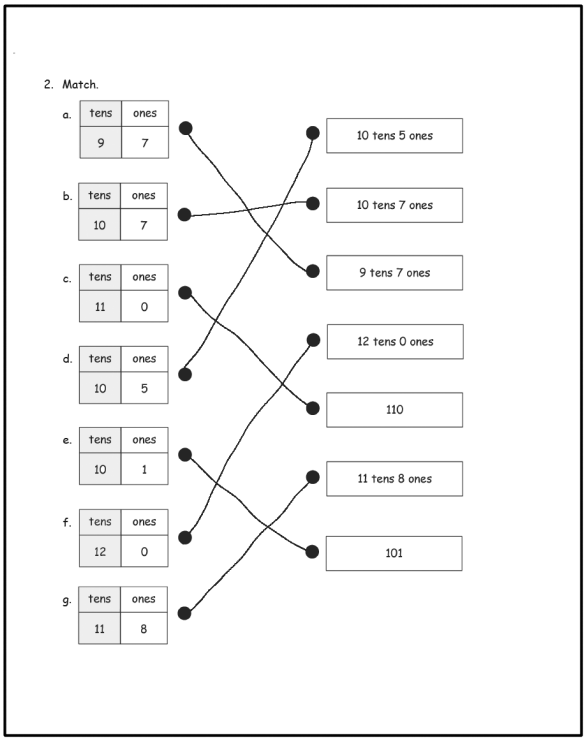
tens	ones
12	0

i. 105

tens	ones
10	5

j. 102

tens	ones
10	2



2. Match.

a.

tens	ones
9	7

b.

tens	ones
10	7

c.

tens	ones
11	0

d.

tens	ones
10	5

e.

tens	ones
10	1

f.

tens	ones
12	0

g.

tens	ones
11	8

10 tens 5 ones

10 tens 7 ones

9 tens 7 ones

12 tens 0 ones

110

11 tens 8 ones

101

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1(d). What similarities and differences do you notice between reading a number and seeing the number in tens and ones?
- Choose a number from Problem 1. What is another way you could show this number in unit form? (This question is best used if students have been highly successful with today's lesson.)
- How can counting the Say Ten way help you with numbers from 100 to 120?
- Look at your Application Problem. Share your strategies for solving the problem.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 74

tens	ones

b. 78

tens	ones

c. ____

tens	ones
9	1

d. ____

tens	ones
10	9

e. 116

tens	ones

f. 103

tens	ones

g. ____

tens	ones
11	2

h. ____

tens	ones
12	0

i. ____

tens	ones
10	5

j. 102

tens	ones

2. Match.

a.

tens	ones
9	7

b.

tens	ones
10	7

c.

tens	ones
11	0

d.

tens	ones
10	5

e.

tens	ones
10	1

f.

tens	ones
12	0

g.

tens	ones
11	8

- 10 tens 5 ones
- 10 tens 7 ones
- 9 tens 7 ones
- 12 tens 0 ones
- 110
- 11 tens 8 ones
- 101

Name _____ Date _____

1. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 83

tens	ones

b. ____

tens	ones
9	4

c. ____

tens	ones
11	5

d. 106

tens	ones

2. Write the number.

a. 10 tens 2 ones is the number _____.

b. 11 tens 4 ones is the number _____.

Name _____ Date _____

1. Write the number as tens and ones in the place value chart, or use the place value chart to write the number.

a. 81

tens	ones

b. 98

tens	ones

c. ____

tens	ones
11	7

d. ____

tens	ones
10	8

e. 104

tens	ones

f. 111

tens	ones

2. Write the number.

a. 9 tens 2 ones is the number _____.	b. 8 tens 4 ones is the number _____.
c. 11 tens 3 ones is the number _____.	d. 10 tens 9 ones is the number _____.
e. 10 tens 1 ones is the number _____.	f. 11 tens 6 ones is the number _____.

3. Match.

a.

tens	ones
10	2

b.

tens	ones
9	5

c.

tens	ones
11	4

d.

tens	ones
11	0

e.

tens	ones
10	8

f.

tens	ones
10	0

g.

tens	ones
11	8

- 11 tens 4 ones
- 9 tens 5 ones
- 11 tens 8 ones
- 11 tens 0 ones
- 102
- 10 tens 0 ones
- 108

Lesson 7

Objective: Use objects, pictures, and expanded and standard forms to represent numbers up to 120

Suggested Lesson Structure

Fluency Practice	(10 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**

Fluency Practice (10 minutes)

- Grade 1 Fluency Sprint **1.3D** (5 minutes)
- Subtraction with Cards **1.2E**, **1.3D** (5 minutes)

Grade 1 Fluency Sprint (5 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose an appropriate Sprint based on the needs of the class. For today's movement-counting between Sprints A and B, consider practicing counting the Say Ten way to prepare students for today's lesson. Follow the suggested counting pattern: Count by ones from 37 to 52 and back, and then count by tens from 87 to 107 and back.

Fluency Sprint List:

- Addition Sprint 1 (targeting addition and missing addends)
- Addition Sprint 2 (targeting the most challenging addition within 10 and beyond 10)
- Subtraction Sprint (targeting subtraction)
- Fluency Sprint: Totals of 5, 6, and 7 (developing understanding of the relationship between addition and subtraction)
- Fluency Sprint: Totals of 8, 9, and 10 (developing understanding of the relationship between addition and subtraction)

Subtraction with Cards (5 minutes)

Materials: (S) 1 pack of numeral cards 0–10 per set of partners (Fluency Template from Lesson 3)

Note: This review activity strengthens students' ability to subtract within 10, which supports their work decomposing numbers in future lessons within the module.

- Students combine their digit cards and place them facedown between them.
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.
- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.
- A player wins by having the most cards when the time is up.

Application Problem (5 minutes)

Materials: (S) Personal white board

Tell students the number of the day is 50. Provide 2 minutes for students to record as many ways as possible to represent 50 on their white boards. Representation may include (but is not limited to) words, number sentences, and drawings. After 2 minutes, provide time for partners to share ideas. Come back together as a class and ask volunteers to share their ways to represent 50. As students share, record on the board.

Sample representations include: fifty, quick ten drawings, 5 dimes, 49 + 1 = 50.

This Application Problem supports the understanding that numbers can be represented in multiple ways. This lays the groundwork for today's Concept Development as students learn to represent numbers using expanded form.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Support students, including some emergent bilingual students, with sharing their thinking by using the following prompts and sentence frames.

- How did you show …?
- Can you show __ a different way?
- I can show ___ by ….

Concept Development (35 minutes)

Materials: (T) Hide Zero cards (Lesson 3 Template 1), 20 ten-sticks and 10 loose cubes (S) Place value chart (Template)

Call students to sit in a semi-circle on the rug. Distribute place value charts to students.

Invite students to sit in a semi-circle on the rug or floor. Distribute place value charts to students.

T: (On the floor, place 10 ten-sticks grouped together to form 100, 1 ten-stick, and 1 loose cube.) What number did I build?

S: 111.

T: On your place value chart, draw a picture to show this number. You can draw a square for the hundred, a quick ten, and a quick one.

S: (Students draw on their place value charts.)

T: Look at my cubes and your drawing. How is each 1 in this number different?

S: Each 1 is in a different place, so it has a different value.

T: Exactly. There is 1 hundred, 1 ten, and 1 one. To help see the values of each digit, we can write this number using expanded form. (On the board, write 100 + 10 + 1.)

T: When we use expanded form, we are recording the value of each digit in our number. Expanded form tells me 100 + 10 + 1 is equal to 111. (Place the following hide zero cards on the floor: 100, 10, 1.) Let's use the matching hide zero cards to see if this is true. Can I have a volunteer join these three to see if we get 111?

S: (Student overlays the hide zero cards to form the number 111.)

T: Yes, 100 + 10 + 1 has the same value as 111. Let's look at another number (On the floor, place 10 ten-sticks grouped together to make a hundred and 8 loose cubes.) What number did I build?

S: 108.

T: Draw a picture showing hundreds, tens, and ones on your place value chart to match my number.

S: (Students record 1 hundred and 8 ones on their charts.)

T: What did you draw in the hundreds place?

S: 100.

T: What did you draw in the tens place?

S: Nothing. There is a zero in the tens place of our number.

T: What did you draw in the ones place?

S: 8.

T: On the back of your place value chart, write 108 using expanded form.

S: (Students write on the back of their place value charts.)

T: How do you write 108 using expanded form?

S: 100 + 8.

T: Do we need to write anything for the tens place?

S: No, because our number has a zero in the tens place.

T: Let's check our work using hide zero cards. (Place the following hide zero cards on the floor: 100, 8.) Can I have a volunteer join these hide zero cards to see if they really form the number 108?

T: Today and every day, we can use expanded form to show the value of each digit within a number.

Repeat the above steps with other numbers as time allows. Numbers may include 84, 118, and 91. Continue to draw a connection between concrete manipulatives, drawings, and expanded form. These connections provide students with visuals and allow them to understand the meaning of expanded form.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

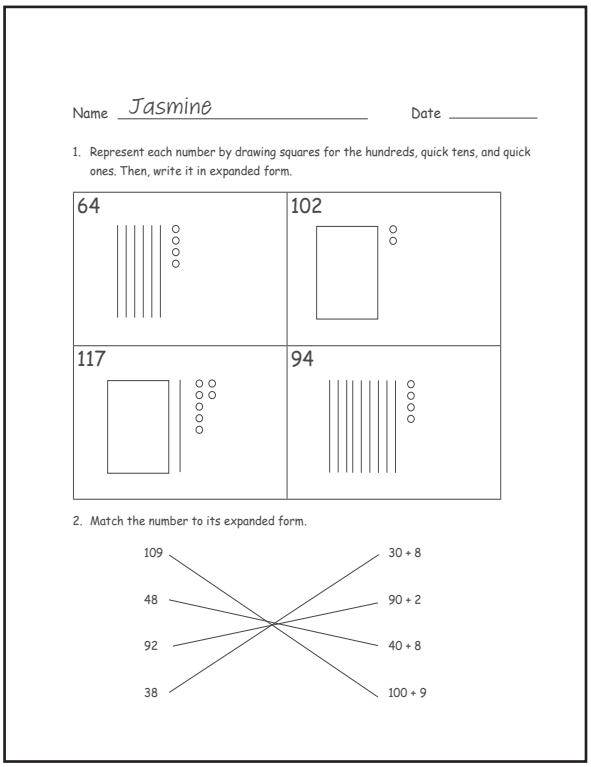
Grade 1 students learn to show numbers in different forms. Support students, including some emergent bilingual students, by creating a terminology chart with examples such as the following for 112.

- unit form 1 hundred 1 ten 2 ones
- expanded form 100 + 10 + 2

Consider affixing a rubber band to the chart to support students in understanding the word expanded.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Distribute the Problem Set to students. Monitor students as they work and help those who need support.



Name Jasmine Date

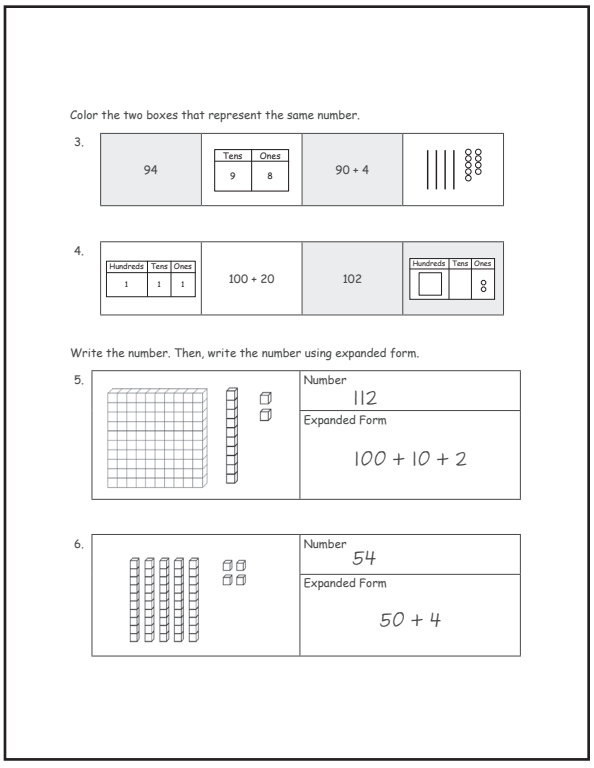
1. Represent each number by drawing squares for the hundreds, quick tens, and quick ones. Then, write it in expanded form.

64 | 102

117 | 94

2. Match the number to its expanded form.

109 — 30 + 8
48 — 90 + 2
92 — 40 + 8
38 — 100 + 9



Color the two boxes that represent the same number.

3. 94 | Tens 9, Ones 8 | 90 + 4 | ||||

4. Hundreds 1, Tens 1, Ones 1 | 100 + 20 | 102 | Hundreds, Tens, Ones 8

Write the number. Then, write the number using expanded form.

5. Number: 112; Expanded Form: 100 + 10 + 2

6. Number: 54; Expanded Form: 50 + 4

Student Debrief (10 minutes)

Lesson Objective: Use objects, pictures, and expanded and standard forms to represent numbers up to 120.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How does our Application Problem relate to today's Problem Set?
- In what ways can we represent a number?
- Look at Problem 1. How did you represent 102 with a drawing?
- Compare your solution for Problem 3 to your partner's solution. Are they the same?
- Why might it be helpful to represent a number using expanded form?
- Which numbers are simplest to represent using expanded form? Which numbers are trickiest to represent using expanded form?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Represent each number by drawing squares for the hundreds, quick tens, and quick ones. Then, write it in expanded form.

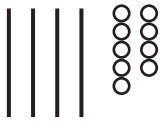
64	102
117	94

2. Match the number to its expanded form.

109	30 + 8
48	90 + 2
92	40 + 8
38	100 + 9

Color the two boxes that represent the same number.

3.

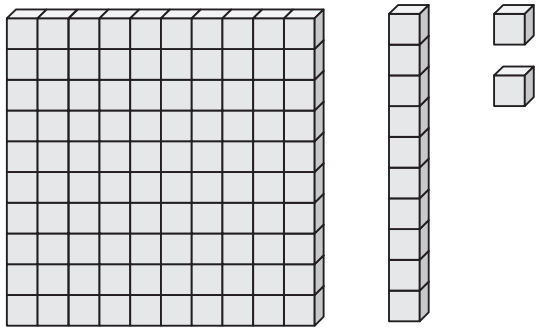
94	Tens: 9, Ones: 8	90 + 4	

4.

Hundreds: 1, Tens: 1, Ones: 1	100 + 20	102	Hundreds, Tens, Ones

Write the number. Then, write the number using expanded form.

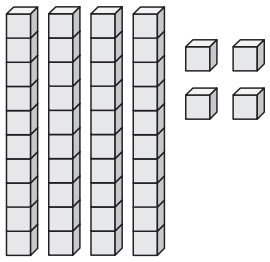
5.



Number

Expanded Form

6.



Number

Expanded Form

Name _____ Date _____

1. Represent each number by drawing squares for the hundreds, quick tens, and quick ones. Then, write it in expanded form.

119

Drawing			Expanded Form
Hundreds	Tens	Ones	

89

Drawing			Expanded Form
Hundreds	Tens	Ones	

102

Drawing			Expanded Form
Hundreds	Tens	Ones	

2. Complete the number sentences.

_____ = 100 + 10 + 8 40 + 5 = _____ _____ = 100 + 10

Name _____ Date _____

1. Represent each number by drawing squares for the hundreds, quick tens, and quick ones. Then, write it in expanded form.

61

Hundreds	Tens	Ones

88

Hundreds	Tens	Ones

109

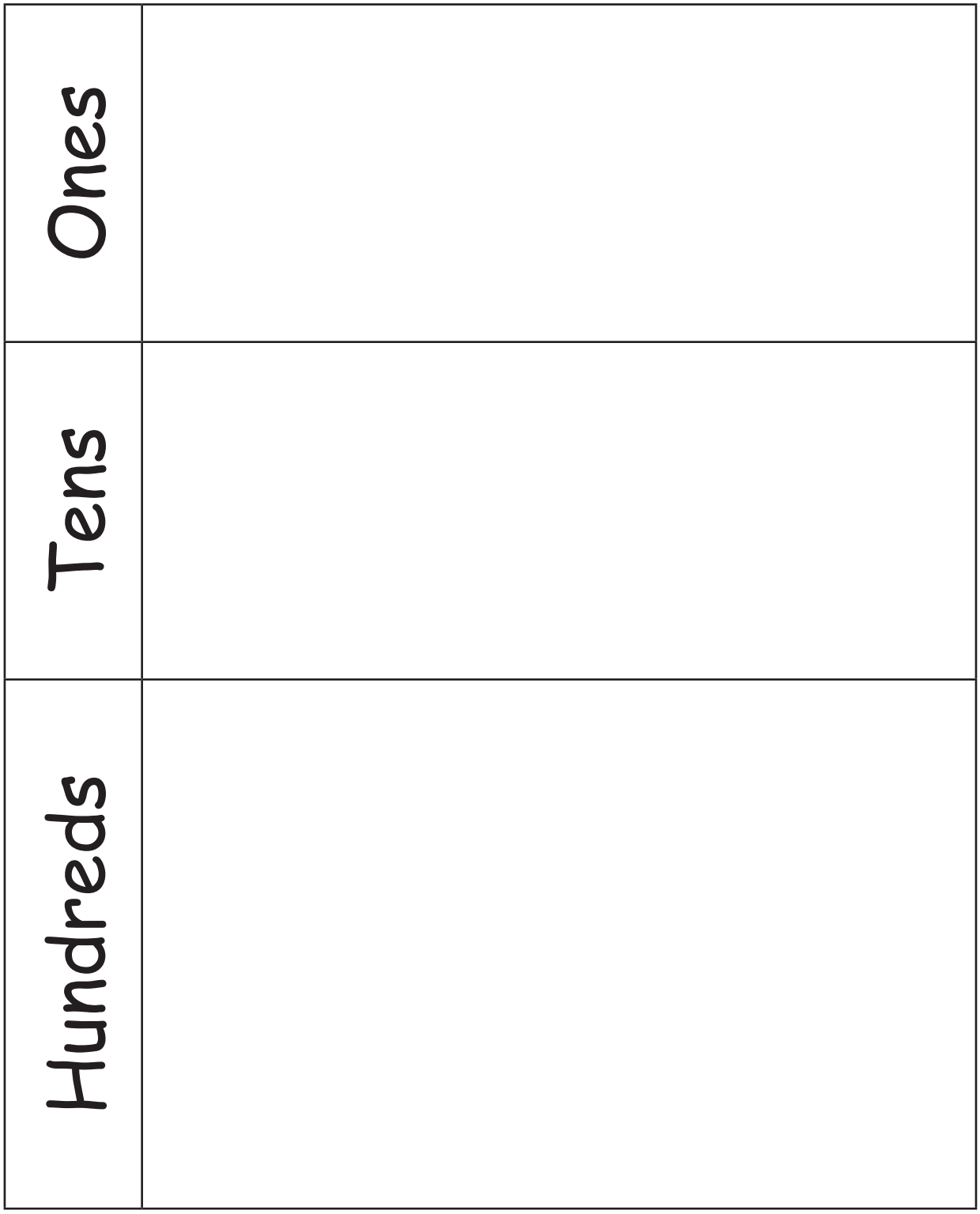
Hundreds	Tens	Ones

113

Hundreds	Tens	Ones

2. Match the number to its expanded form.

102	100 + 20
64	100 + 2
46	60 + 4
120	40 + 6



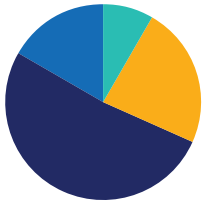
place value chart

Lesson 8

Objective: Represent up to 120 objects with a written numeral.

Suggested Lesson Structure

Fluency Practice	(14 minutes)
Application Problem	(5 minutes)
Concept Development	(31 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (14 minutes)

- Sprint: +1, –1, +10, –10 **1.5A, 1.5C** (10 minutes)
- Beep-Counting **1.5A** (4 minutes)

Sprint: +1, –1, +10, –10 (10 minutes)

Materials: (S) +1, –1, +10, –10 Sprint

Note: This Sprint reviews the grade-level standard of mentally adding or subtracting 10 and supports students' understanding of place value. This sprint will be repeated in Lesson 11. Consider giving students an opportunity to complete the sprint at another time as an opportunity to practice and show improvement on Lesson 11's sprint.

Beep-Counting (4 minutes)

Note: This activity reviews counting and reading numbers to 120.

Write number sequences on the board with missing numbers. Students read the sequence aloud, saying "beep" for the missing number. Then, students say the missing number on the teacher's signal.

Use the following suggested sequence, as time permits:

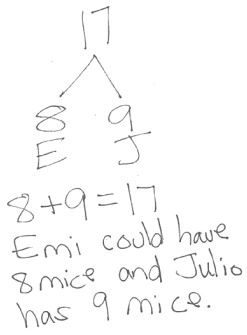
a. 10, 11, 12, ___
b. 110, 111, 112, ___
c. 20, 19, 18, ___
d. 120, 119, 118, ___
e. 17, 18, __, 20
f. 117, 118, ___, 120
g. 8, 9, ___, 11
h. 108, 109, ___, 111
i. 12, 11, ___, 9
j. 112, 111, ___, 109
k. ___, 7, 8, 9
l. ___, 107, 108, 109

Application Problem (5 minutes)

Emi and Julio together have 17 pet mice. How many mice might each child have?

Extension: Who has more, and how many more does that child have?

Note: Today's Application Problem practices decomposing a two-digit number and can have more than one correct answer. This work supports students' compositions and decompositions when they begin Topic C in Lesson 10. Students compose, decompose, and recompose various two-digit addends.



Concept Development (31 minutes)

Materials: (T/S) 12 ten-sticks of linking cubes (ideally 6 red and 6 white ten-sticks), 10 additional loose linking cubes, personal white board

Invite students to gather and sit in a semicircle in the meeting area. The teacher's set of linking cubes should be placed close to the teacher. Distribute personal white boards.

Part 1: Representing and decomposing sets up to 120.

T: Let's use our efficient counting skills to count a set of linking cubes. When I put out the linking cubes, your job is to count them as quickly as you can and write the number of cubes I have. I put most of the cubes into sticks of ten, which should make it faster for you.

T: (Place 5 red ten-sticks and 5 white ten-sticks in the center for students to see. Scatter them far enough apart that students count the 10 ten-sticks. Wait as students count and record.)

T: How many linking cubes are here?

S: 100.

T: (Take all the sticks back. Place 10 ten-sticks down again, this time in one group of 100. Check that students are recording 100 using the proper digits.)

T: How many linking cubes are here?

S: 100.

T: How many ones is that?

S 100.

T: How did you know so quickly this time?

S: It's 10 groups of ten. → It's the same amount as the first set.

T: Yes! We can build 100 using 1 group of one hundred or 10 tens. Is there a way to represent 100 using only loose cubes (ones)?

S: Yes. Use 100 loose cubes.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students who need more support, work together to write the number in a place value chart, and then check the placement of the digits in the number.

T: Is it possible to show 100 using some ten-sticks and some loose cubes? Talk to your partner about this.

S: (Discuss different ways to decompose 100 using tens and ones.)

T: I heard someone say 9 ten-sticks and 10 loose cubes. How do we know this is still 100?

S Skip-count by tens and then count on by ones. 10, 20, 30, 40, 50, 60, 70, 80, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

T: Wow, there are many ways to build 100 using ones, tens, or even a group of one hundred! Now, let's try another number. (Lay out 10 ten-sticks grouped together to form 100. Then, lay out 2 additional ten-sticks spaced apart. As students count and write, watch for the correct way to write the number 120.)

T: How many groups of 100 do you see?

S: 1 hundred.

T: How many tens do you see?

S: 2 tens.

T: How many cubes do you see?

S: 120 cubes.

T: How many ones are there?

S: 120.

T: We can show 120 using a group of 100 and 2 ten-sticks. Is there a different way we could show 120 using hundreds, tens, and ones? Talk to your partner.

S: (Discuss ways to decompose 120 using hundreds, tens, and/or ones.)

T: I heard someone say we could use 1 group of one hundred, 1 ten-stick, and 10 loose ones. (Rearrange the set of 120 to match this arrangement. Model counting the set to ensure it represents 120.)

Repeat the above process using other numbers within 120. Encourage students to apply their knowledge of place value to decompose each number in more than one way.

Part 2: Representing and composing sets up to 120.

T: Now, let's play a game. Use your ten-sticks to build my mystery number. I have 7 tens and 11 ones. Build my mystery number. Then, record a numeral to match.

S: (Build 81 using 7 ten-sticks and 11 loose cubes. Record 81.)

T: Yes! My mystery number is 81. Is there another way you could build this number?

S: Use 8 ten-sticks and 1 loose cube.

T: Correct. Here's a new mystery number for you. This time, draw quick tens and ones to show my number. I have 6 tens and 14 ones. Draw my mystery number. Then, record a numeral to match.

S: (Show 74 using 6 quick tens and 14 quick ones. Record 74.)

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

As a challenge for some students, use other combinations of tens and ones, such as 9 tens 16 ones.

Some students, including some emergent bilingual students, benefit from working in a small group or with a partner because they might be more comfortable practicing their counting with a smaller group of students rather than the entire class.

T: Yes! My mystery number is 74. Is there another way you could build this number?

S: Use 7 ten-sticks and 4 loose cubes.

Repeat the above process using other numbers within 120.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

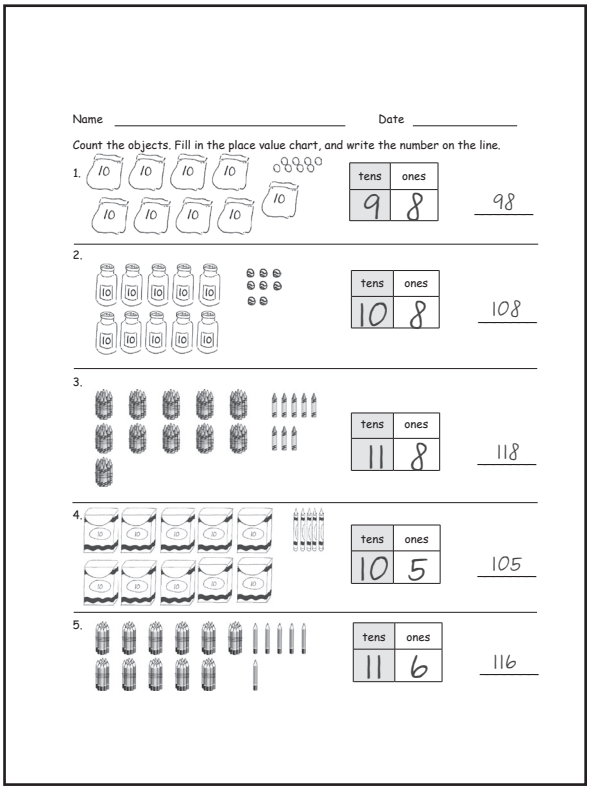
Lesson Objective: Represent up to 120 objects with a written numeral.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

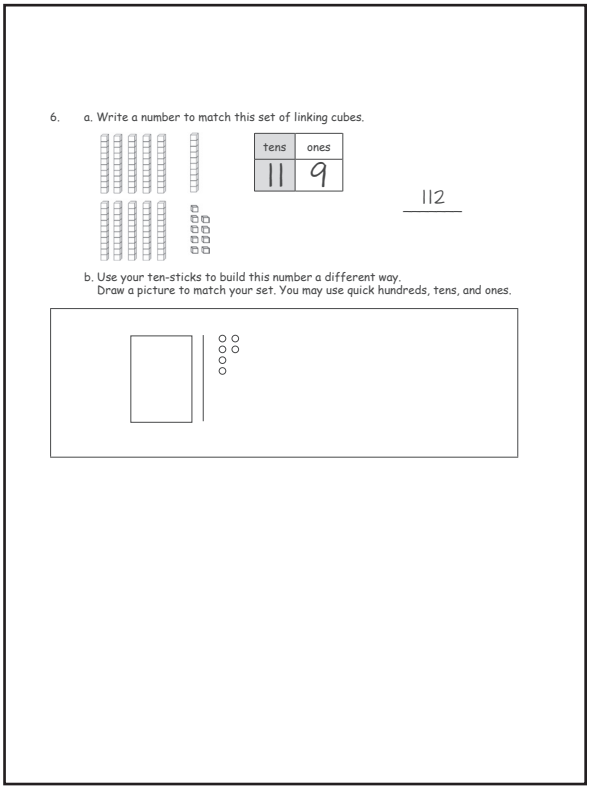
Any combination of the questions below may be used to lead the discussion.

- How many objects are in Problem 4? How many in Problem 5? Which number is greater? Which picture takes up more space? What is another example of more objects taking up less space? Talk to your partner.
- What is another way to represent the set for Problem 6? Is there more than one solution?
- Compare your solution for Problem 7 with your partner's solution. Are your solutions the same or different? Are there other possible solutions?


Name _____ Date _____

Count the objects. Fill in the place value chart, and write the number on the line.

1. tens: 9, ones: 8 — 98
2. tens: 10, ones: 8 — 108
3. tens: 11, ones: 8 — 118
4. tens: 10, ones: 5 — 105
5. tens: 11, ones: 6 — 116


6. a. Write a number to match this set of linking cubes.

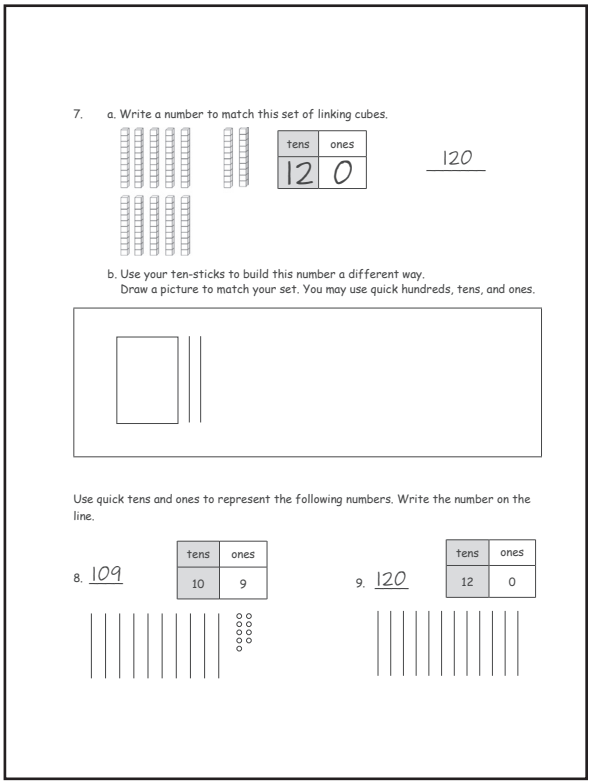
tens: 11, ones: 9 — 112

b. Use your ten-sticks to build this number a different way. Draw a picture to match your set. You may use quick hundreds, tens, and ones.

- How is counting large numbers of objects like counting smaller numbers of objects? Explain your thinking. How is it different?
- How does understanding place value help us represent or build numbers?
- Which beep counting sequences are the quickest for you to answer? Why?
- Look at your Application Problem. What combinations did you use to show 17 pet mice? Are there other combinations that could be used?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



7. a. Write a number to match this set of linking cubes.

tens	ones
12	0

120

b. Use your ten-sticks to build this number a different way.
Draw a picture to match your set. You may use quick hundreds, tens, and ones.

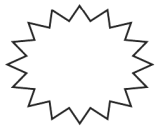
Use quick tens and ones to represent the following numbers. Write the number on the line.

8. 109

tens	ones
10	9

9. 120

tens	ones
12	0

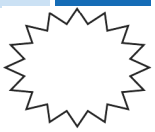
Number Correct: 

A

Name _____ Date _____

*Write the missing number. Pay attention to the addition or subtraction sign.

1.	5 + 1 = ☐		16.	29 + 10 = ☐	
2.	15 + 1 = ☐		17.	9 + 1 = ☐	
3.	25 + 1 = ☐		18.	19 + 1 = ☐	
4.	5 + 10 = ☐		19.	29 + 1 = ☐	
5.	15 + 10 = ☐		20.	39 + 1 = ☐	
6.	25 + 10 = ☐		21.	40 – 1 = ☐	
7.	8 – 1 = ☐		22.	30 – 1 = ☐	
8.	18 – 1 = ☐		23.	20 – 1 = ☐	
9.	28 – 1 = ☐		24.	20 + ☐ = 21	
10.	38 – 1 = ☐		25.	20 + ☐ = 30	
11.	38 – 10 = ☐		26.	27 + ☐ = 37	
12.	28 – 10 = ☐		27.	27 + ☐ = 28	
13.	18 – 10 = ☐		28.	☐ + 10 = 34	
14.	9 + 10 = ☐		29.	☐ – 10 = 14	
15.	19 + 10 = ☐		30.	☐ – 10 = 24	

Number Correct: 

B

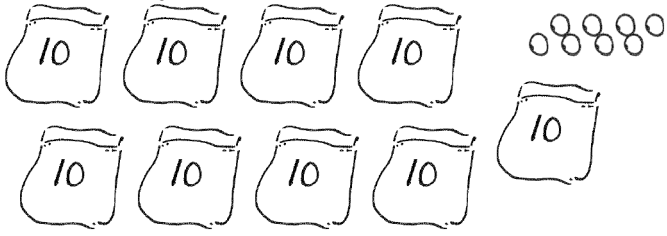
Name _____ Date _____

*Write the missing number. Pay attention to the addition or subtraction sign.

1.	4 + 1 = ☐		16.	28 + 10 = ☐	
2.	14 + 1 = ☐		17.	9 + 1 = ☐	
3.	24 + 1 = ☐		18.	19 + 1 = ☐	
4.	6 + 10 = ☐		19.	29 + 1 = ☐	
5.	16 + 10 = ☐		20.	39 + 1 = ☐	
6.	26 + 10 = ☐		21.	40 – 1 = ☐	
7.	7 – 1 = ☐		22.	30 – 1 = ☐	
8.	17 – 1 = ☐		23.	20 – 1 = ☐	
9.	27 – 1 = ☐		24.	10 + ☐ = 11	
10.	37 – 1 = ☐		25.	10 + ☐ = 20	
11.	37 – 10 = ☐		26.	22 + ☐ = 32	
12.	27 – 10 = ☐		27.	22 + ☐ = 23	
13.	17 – 10 = ☐		28.	☐ + 10 = 39	
14.	8 + 10 = ☐		29.	☐ – 10 = 19	
15.	18 + 10 = ☐		30.	☐ – 10 = 29	

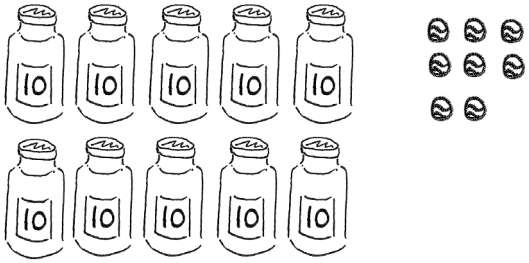
Name _____ Date _____

Count the objects. Fill in the place value chart, and write the number on the line.

1. 

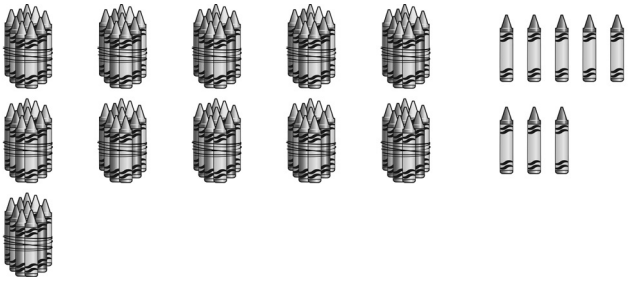
tens	ones

_____

2. 

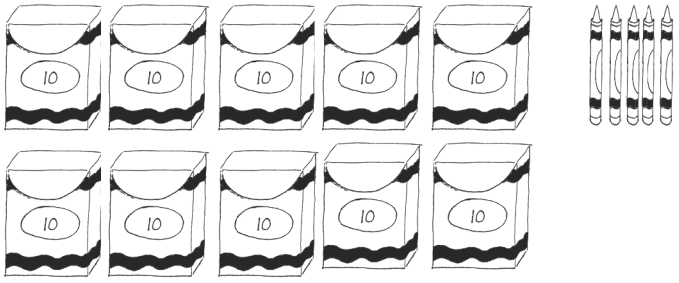
tens	ones

_____

3. 

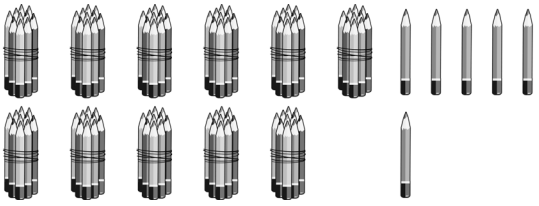
tens	ones

_____

4. 

tens	ones

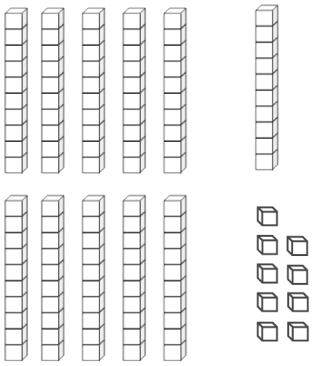
_____

5. 

tens	ones

_____

6. a. Write a number to match this set of linking cubes.

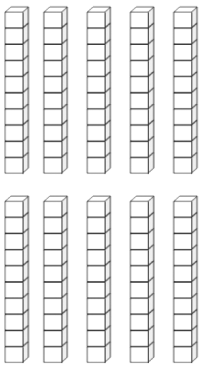


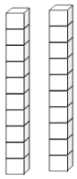
tens	ones

_____

b. Use your ten-sticks to build this number a different way.
Draw a picture to match your set. You may use quick hundreds, tens, and ones.

7. a. Write a number to match this set of linking cubes.





tens	ones

_____

b. Use your ten-sticks to build this number a different way.
Draw a picture to match your set. You may use quick hundreds, tens, and ones.

Use quick tens and ones to represent the following numbers. Write the number on the line.

8. _____

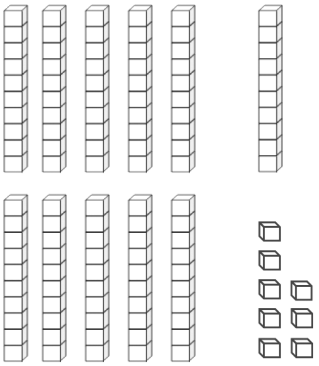
tens	ones
10	9

9. _____

tens	ones
12	0

Name _____ Date _____

1. Count the objects. Fill in the place value chart, and write the number on the line.



tens	ones

_____

Use your ten-sticks to build this number a different way.
Draw a picture to match your set. You may use quick hundreds, tens, and ones.

2. Use quick tens and ones to represent the following numbers. Write the number on the line.

a.

tens	ones
11	0

_____

b.

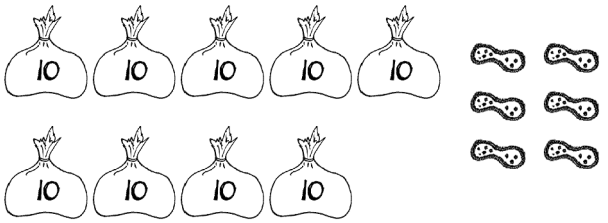
tens	ones
10	1

_____

Name _____ Date _____

Count the objects. Fill in the place value chart, and write the number on the line.

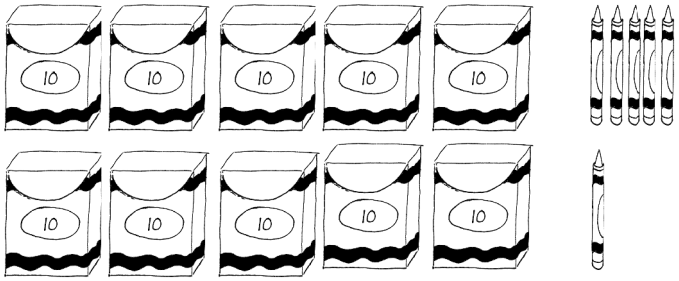
1.



tens	ones

_____

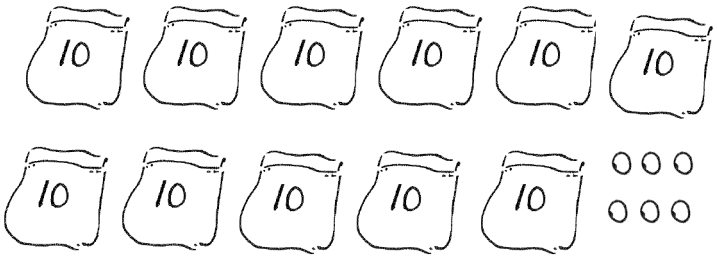
2.



tens	ones

_____

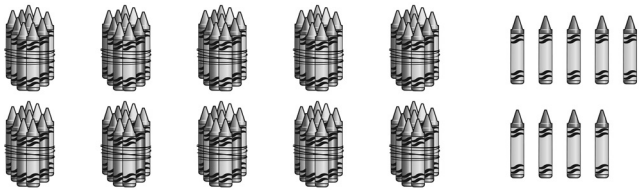
3.



tens	ones

_____

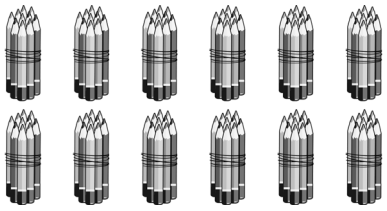
4.



tens	ones

_____

5.

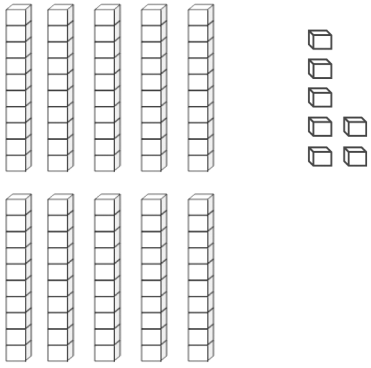


tens	ones

_____

Write a number to match the set of linking cubes.

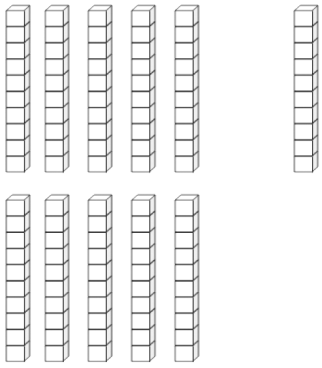
6.



tens	ones

_____

7.



tens	ones

_____

Use quick tens and ones to represent the following numbers.
Write the number on the line.

8. _____

tens	ones
11	0

9. _____

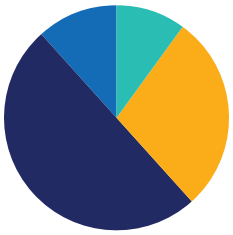
tens	ones
10	5

Lesson 9

Objective: Generate a number that is greater than or less than a given whole number up to 120.

Suggested Lesson Structure

Fluency Practice	(17 minutes)
Application Problem	(6 minutes)
Concept Development	(30 minutes)
Student Debrief	(7 minutes)
Total Time	**(60 minutes)**



Fluency Practice (17 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Digit Detective **1.2A** (4 minutes)
- Tens and Ones **1.2A** (3 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Based on the needs of the class, select a Sprint from the Lesson 3 materials.

There are two options available.

1. Administer the next Sprint in the sequence**.**
2. Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Hopefully, the daily Sprints and Practice Sets are helping students make good progress toward becoming proficient in the required fluency for Grade 1. Support students who regularly finish fewer than half of the problems on a Sprint. Take note of the problem types that slow them down. Perhaps send the next day's Sprint home with them the night prior to administration. Awareness of a student's areas of growth facilitates targeted support from within the learning community. For example, a volunteer could support with helping a certain student gain fluency with subtracting 3 from numbers within 10.

Digit Detective (4 minutes)

Materials: (T/S) Personal white board

Conduct activity as taught in Lesson 4.

Note: This activity reviews place value for two-digit numbers to 100, which was introduced in previous lessons. Allow students to use their personal white boards to record the mystery numbers as needed. Write a number on your personal white board, but do not show students.

Tens and Ones (3 minutes)

Materials: (T) Rekenrek

Note: Reviewing this Module 4 Fluency Activity prepares students for today's lesson. Practice decomposing numbers into tens and ones using the Rekenrek.

T: (Show 18 on the Rekenrek.) How many tens do you see?
S: 1.
T: How many ones?
S: 8.
T: Say the number the Say Ten way.
S: Ten 8.
T: 1 ten plus 8 ones is …?
S: 18.

Slide over the next row and repeat the process for 28 and 38. Continue with the following suggested sequence within 40: 13, 23, 33, 12, 22, 32, 15, 25, and 35.

Application Problem (6 minutes)

Materials: (S) Personal white board

Luna has 12 crackers. Her baby brother has one less cracker than Luna. Her mom has ten more crackers than Luna. How many crackers does each person have? Draw numbers or pictures to solve.

Note: This Application Problem serves as review from yesterday's lesson and sets the stage for today's lesson as students work to generate numbers greater or less than a given number.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Students who may need more support with adding or subtracting ones and tens may benefit from using a vertical counting sequence or manipulatives as they complete the problem.

Concept Development (30 minutes)

Materials: (T) Number cards (Template) (S) Personal white board

Part 1: Generate numbers greater than (and less than) a given number.

Distribute personal white boards.

T: A teacher asked her class to write a number greater than 92. Jacob wrote 89. He said 89 is greater than 92 because 8 and 9 are bigger than 9 and 2. Use a quick ten drawing to decide if Jacob's thinking is correct.

S: (Students draw on their white boards.)

T: Is Jacob correct?

S: No. When you compare numbers, you start with the biggest place. The teacher's number has 9 tens. Jacob's number only has 8 tens.

T: Correct! Another student, Kayla, said 95 is greater than 92. Use quick ten drawings to decide if 95 is greater than 92.

S: (Students draw on their white boards.)

T: Is Kayla's number greater than the teacher's number?

S: Yes. Both numbers have 9 tens in them, but Kayla's number has more ones in it.

T: What are some other numbers that are greater than 92? Write them on your white boards. You may draw a picture and talk to your partner as needed.

S: (Students find numbers greater than 92 and discuss with partners.)

T: Which numbers are greater than 92?

S: 93. → 99. → 100. → 110.

T: Look at 110. We can draw a square for one hundred, quick tens, and quick ones to see if this number is greater than 92. We can draw our hundreds, tens, and ones on a place value chart. (Draw a place value chart and record drawings on it. See example to the right.)

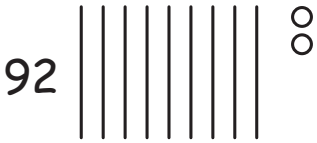
T: Which place do we look at first when comparing two numbers?

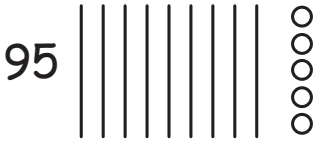
S: The biggest place. 110 has a number in the hundreds place and 92 doesn't. 110 is greater than 92.

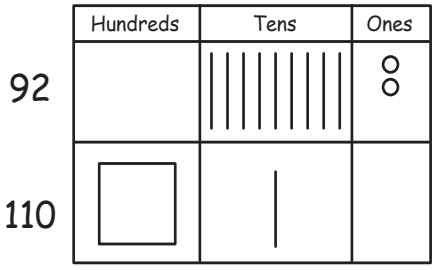
Repeat the above steps. Challenge students to use drawings to generate a number both greater and less than a given number.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

For students who may need more support, including some emergent bilingual students, consider providing a place value chart template. For example, the place value chart may include a visual at the top of each column that represents hundreds, tens, and ones. Students can reference these visuals as they draw their quick ten number on the place value chart.







Part 2: Partner Prove It

Distribute a number card (Template) to each student.

Students walk around the room, each carrying their number card and white board. When the teacher gives a signal, students find partners. Partner A shows their number to Partner B. Partner B generates a number less than the number on the card and makes a quick ten drawing to prove their thinking. Partners switch roles and repeat.

Repeat the activity as time allows. Adjust the directions to have partners generate numbers greater than the given number.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes.

For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (7 minutes)

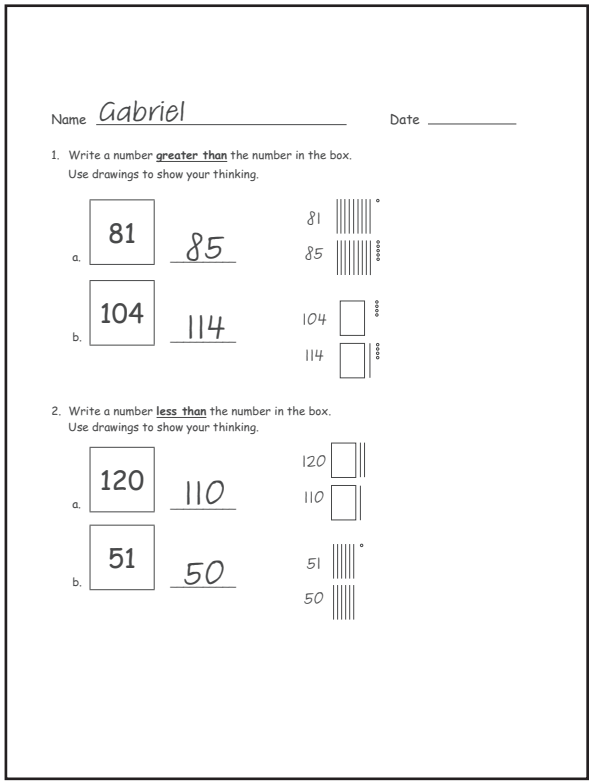
Lesson Objective: Generate a number that is greater than or less than a given whole number up to 120.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How is today's Application Problem similar to our Problem Set? How is it different?



Name Gabriel Date _____

1. Write a number **greater than** the number in the box. Use drawings to show your thinking.

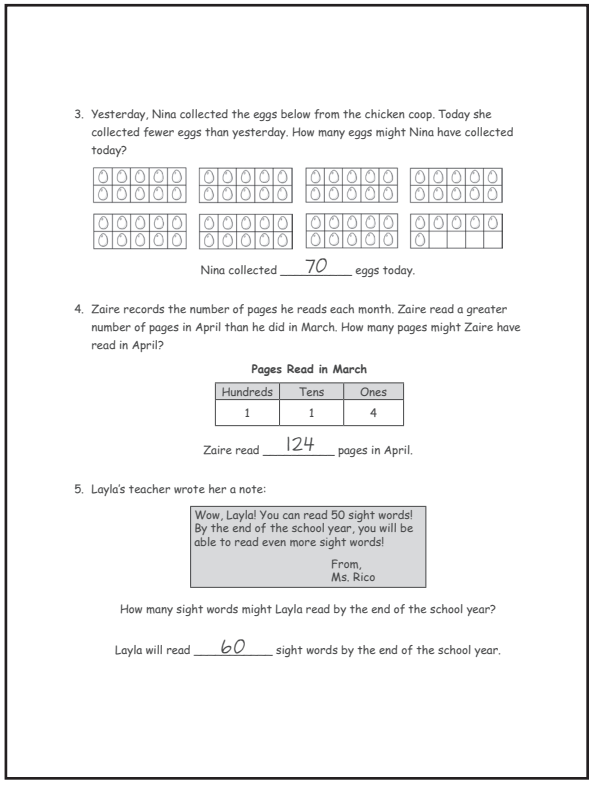
a. 81 — 85

b. 104 — 114

2. Write a number **less than** the number in the box. Use drawings to show your thinking.

a. 120 — 110

b. 51 — 50



3. Yesterday, Nina collected the eggs below from the chicken coop. Today she collected fewer eggs than yesterday. How many eggs might Nina have collected today?

Nina collected 70 eggs today.

4. Zaire records the number of pages he reads each month. Zaire read a greater number of pages in April than he did in March. How many pages might Zaire have read in April?

Pages Read in March

Hundreds	Tens	Ones
1	1	4

Zaire read 124 pages in April.

5. Layla's teacher wrote her a note:

> Wow, Layla! You can read 50 sight words! By the end of the school year, you will be able to read even more sight words!
>
> From,
> Ms. Rico

How many sight words might Layla read by the end of the school year?

Layla will read 60 sight words by the end of the school year.

- How can you use drawings to find a number greater than or less than another number?
- Look at Problem 4. Compare your answer to your partner's answer. Do you have the same answer?
- Is it possible to have more than one answer for each problem? Why or why not?
- What tools or strategies can help us generate a number greater than another number?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Write a number **greater than** the number in the box. Use drawings to show your thinking.

a. 81 _____

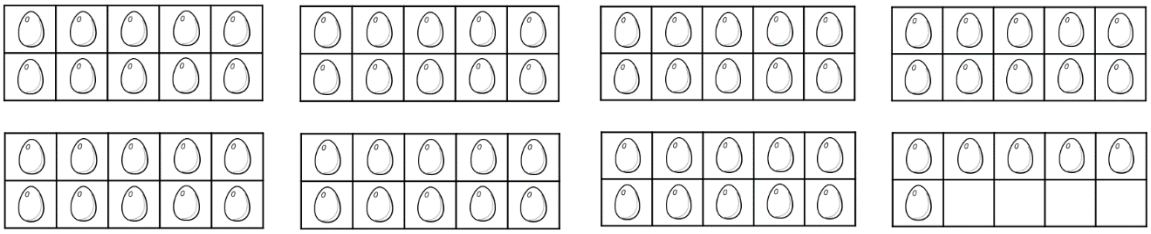
b. 104 _____

2. Write a number **less than** the number in the box. Use drawings to show your thinking.

a. 120 _____

b. 51 _____

3. Yesterday, Nina collected the eggs below from the chicken coop. Today she collected fewer eggs than yesterday. How many eggs might Nina have collected today?



Nina collected _____ eggs today.

4. Zaire records the number of pages he reads each month. Zaire read a greater number of pages in April than he did in March. How many pages might Zaire have read in April?

Pages Read in March

Hundreds	Tens	Ones
1	1	4

Zaire read _____ pages in April.

5. Layla's teacher wrote her a note:

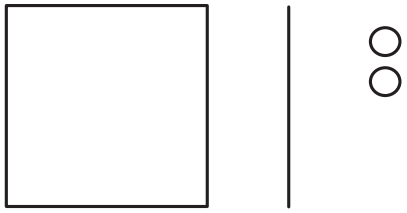
> Wow, Layla! You can read 50 sight words! By the end of the school year, you will be able to read even more sight words!
>
> From,
> Ms. Rico

How many sight words might Layla read by the end of the school year?

Layla will read _____ sight words by the end of the school year.

Name _____ Date _____

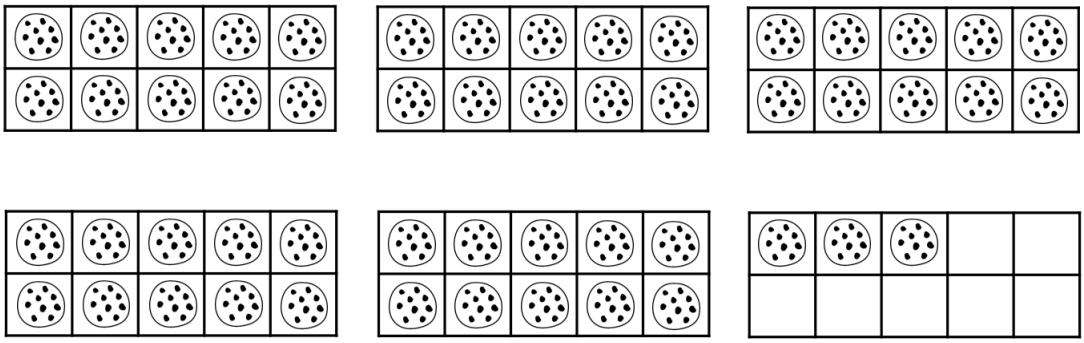
1. Jason represented a number using a square for the hundred, a quick ten, and quick ones.

Jason's Number:	My Number:
	

   a. What number did Jason represent? _____

   b. Use a drawing to show a number less than Jason's number.

2. Charlotte baked the chocolate chip cookies shown below. She wants to bake more sugar cookies than chocolate chip cookies. How many sugar cookies might Charlotte bake?



Charlotte bakes _____ sugar cookies.

3. Write a number **less than** the number in the box.

_____

98

Write a number **greater than** the number in the box.

_____

Name _____ Date _____

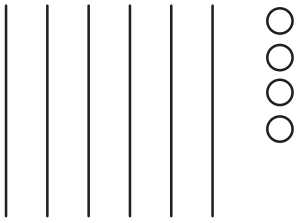
1. Billie recorded how many minutes she exercised this week. She wants to exercise more minutes next week. How many minutes might Billie exercise next week?

Minutes Exercised This Week

Hundreds	Tens	Ones
1	0	3

Billie will exercise _____ minutes next week.

2. Solomon represented a number using quick tens.

Solomon's Number:	My Number:
	

a. What number did Solomon represent? _____

b. Use quick tens to show a number less than Solomon's number.

3. Write a number **less than** the number in the box.

_____

110

Write a number **greater than** the number in the box.

_____

20	24	27
33	36	39
40	42	46
51	53	55
62	63	67

number cards

70	72	75
83	84	88
91	93	95
100	101	105
110	112	115

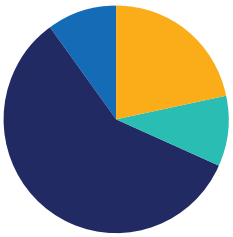
number cards

Lesson 10

Objective: Use place value to compare whole numbers up to 120 using comparative language.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(7 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Subtraction with Cards **1.2E, 1.3D** (5 minutes)
- Coin Drop **1.4A, 1.4C** (3 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all of the questions on their most recent Practice Set correctly should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Have students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Subtraction with Cards (5 minutes)

Materials: (S) 1 pack of numeral cards 0–10 (Lesson 3 Fluency Template)

Note: This review activity targets the subtraction fluency for Grade 1. As students play, closely monitor any students who have not performed well on the Practice Sets and Sprints to see if they are able to be successful in this untimed, interactive game. Take advantage of any opportunity to highlight improvement.

- Students combine their digit cards and place them facedown between them.
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.

- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.
- A player wins by having the most cards when the time is up.

Coin Drop (3 minutes)

Materials: (T) 4 dimes, 10 pennies, can

Note: In this activity, students practice adding and subtracting ones and tens within 40. This skill is expanded to numbers within 100 in today's lesson.

T: (Hold up a penny.) Name my coin.
S: A penny.
T: How much is it worth?
S: 1 cent.
T: Listen carefully as I drop coins in my can. Count along in your minds.

Drop in some pennies and ask how much money is in the can. Take out some pennies and show them. Ask how much money is still in the can. Continue adding and subtracting pennies for a minute or so. Then, repeat the activity with dimes.

Application Problem (5 minutes)

Materials: (S) Personal white board

Megan has 96 cents. Megan's brother, Oscar, has more money than her. How much money might Oscar have? Megan's little sister, Emma, has less money than Megan. How much money might Emma have?

Note: This application problem serves as review from yesterday's lesson and prepares students to compare numbers during today's Concept Development.

Concept Development (35 minutes)

Materials: (T) Chart paper, 22 ten-sticks and 20 loose cubes, comparison words chart (Template 1) (S) Personal white board, 12 ten-sticks and 10 loose cubes, spinner (Template 2)

Part 1: Making Comparisons

Prior to the lesson, draw a place value chart on the chart paper (include hundreds, tens, and ones places).

Call students to sit on the rug in a semi-circle. Distribute personal whiteboards to students.

T: (Display the comparison words chart.) We will begin by reviewing our comparison words. Let's read these words as a class.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Support the meaning of the terms *greater than*, *more than*, and *less than* with students by using gestures.

Open your arms wide when saying the words *greater than* or *more than*. Open your arms only a little to indicate *less than*.

Have students do the same throughout the lesson.

S: (Read comparison words chart.)

T What does the phrase *more than* mean?

S: It means you have a bigger number than someone else.

T: Yes! Student A, would you use *more than* in a sentence?

Continue to review the remaining comparison words, and choose volunteers to use each phrase in a sentence.

T: Now that we've reviewed our comparison words, we will practice using them throughout today's lesson.

T: I am thinking of two numbers. I have built each number on the floor with cubes. (Build 113 using 10 ten-sticks grouped together to form 100, 1 ten-stick, and 3 loose cubes. Build 89 using 8 ten-sticks and 9 loose cubes.) On your white board, write the numbers I built without talking. Then, circle the *greater number*. That is, circle the number that is *more than* the other number.

S: (Students write the numbers 113 and 89. Students circle the larger number.)

T: What are my two numbers?

S: 113 and 89.

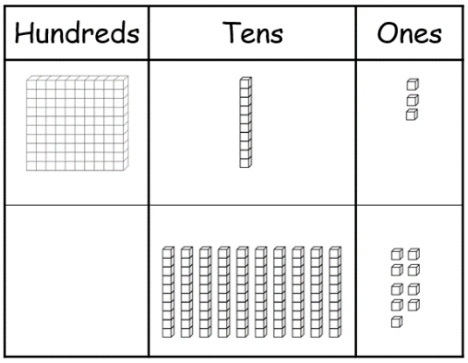
T: Which number is *greater*?

S: 113.

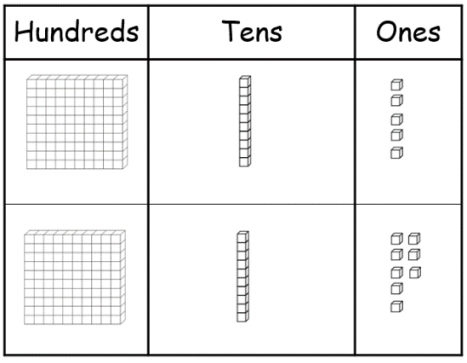
T: I'm confused. 8 and 9 are greater than 1, 1, and 3. Why didn't you circle 89?

S: 89 doesn't have a number in the hundreds place, and 113 does. That means 113 is the greater number.

T: (Lay the place value chart on the floor. Move the cubes representing 113 and 89 onto the chart paper—see right). I see! When we are comparing two numbers, we have to start with the greatest place. Here, the greatest place is the hundreds place. Since 113 has one hundred and 89 doesn't have any hundreds, we already know 113 is the greater number.



T: (Clear the place value chart of cubes. Use ten-sticks and loose cubes to build two new numbers on the chart: 115 and 118.) I am thinking of two new numbers. I have built these numbers on our place value chart. On your white board, write the numbers I built without talking. Then, circle the number that is *less than* the other number.



T: What are my two numbers?

S: 115 and 118.

T: Which number is *less*?

S: 115.

T: How do you know?

S: I started by looking at the greatest place, but both numbers have one hundred. Next, I looked at the tens place, but they both have one ten. So, then I had to look at the ones place. That's when I saw 115 is less than 118.

T: Exactly! When comparing two numbers, we need to start by comparing the greatest place. If they both have the same amount, we go to the next greatest place.

Part 2: Build, Spin, and Compare

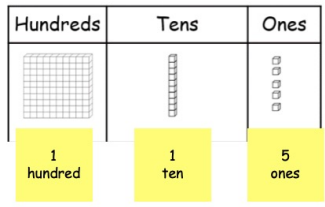
Distribute 12 ten-sticks and 10 loose cubes to each student. Arrange students in pairs and give each pair a spinner (Template 2) and paper clip.

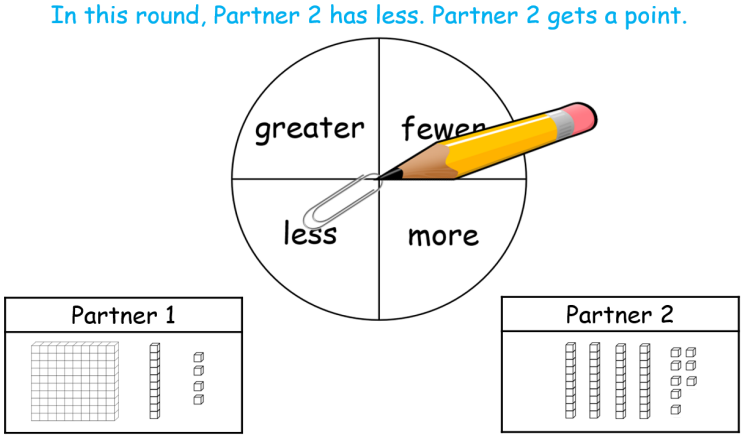
Partners play Build, Spin, and Compare. Directions:

- In each round, each partner builds a set using any number of ten-sticks and loose cubes. Remember, if you are making a hundred, group 10 ten-sticks together to form your hundred.
- Partner 1 spins the spinner (see example below) to determine which number is the winner.
- The partner with the winning number records 1 point on their white board.
- Rounds continue, with partners taking turns spinning, until time is called.
- The person with the most points wins.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Students, including some emergent bilingual students, sometimes misrepresent 115 as "1,015" when they count 10 tens in the hundreds place. Support the idea that 1 hundred is 1 unit of 10 tens by labeling each place in unit form with a sticky note. Then, relate unit form to standard form.





Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes.

For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (7 minutes)

Lesson Objective: Use place value to compare whole numbers up to 120 using comparative language.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

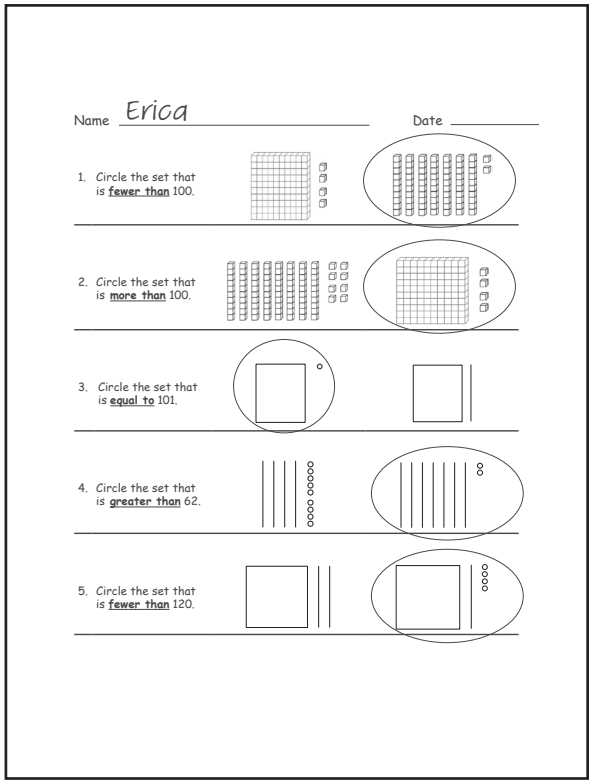
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How does our Application Problem relate to today's Problem Set?
- Look at Problem 6. How did you decide which number to circle?
- Look at Problem 8. Compare your paper to your partner's paper. Are your answers the same? Is your strategy/work the same? Is it possible to get the same answer even if you used different strategies?
- When might we need to compare numbers (or use comparison words) in our daily lives?
- Use the phrase *less than* in a sentence.
- Use the phrase *more than* in a sentence.
- Use the phrase *fewer than* in a sentence.
- Use the phrase *greater than* in a sentence.
- Use the phrase *equal to* in a sentence.

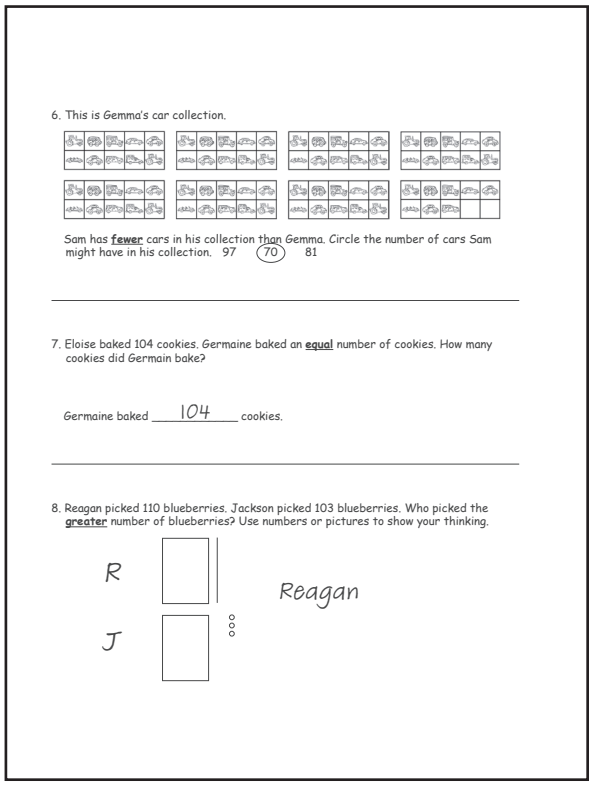
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Erica Date

1. Circle the set that is **fewer than** 100.
2. Circle the set that is **more than** 100.
3. Circle the set that is **equal to** 101.
4. Circle the set that is **greater than** 62.
5. Circle the set that is **fewer than** 120.



6. This is Gemma's car collection.

Sam has **fewer** cars in his collection than Gemma. Circle the number of cars Sam might have in his collection. 97 (70) 81

7. Eloise baked 104 cookies. Germaine baked an **equal** number of cookies. How many cookies did Germain bake?

Germaine baked 104 cookies.

8. Reagan picked 110 blueberries. Jackson picked 103 blueberries. Who picked the **greater** number of blueberries? Use numbers or pictures to show your thinking.

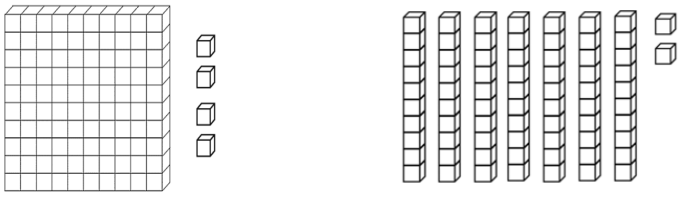
R

J

Reagan

Name _____ Date _____

1. Circle the set that is **fewer than** 100.

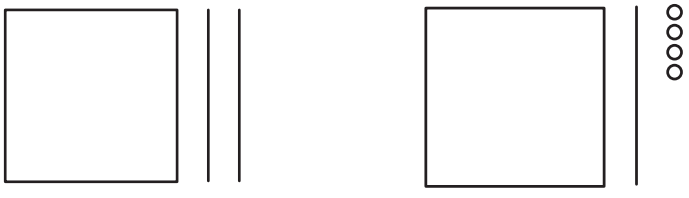


2. Circle the set that is **more than** 100.

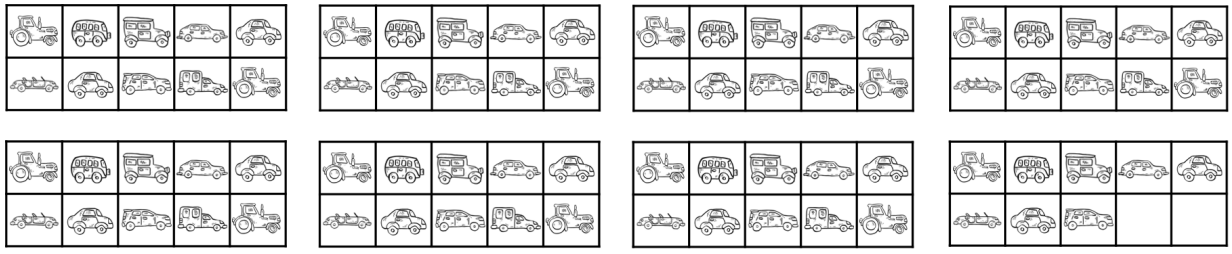
3. Circle the set that is **equal to** 101.

4. Circle the set that is **greater than** 62.

5. Circle the set that is **fewer than** 120.



6. This is Gemma's car collection.



Sam has **fewer** cars in his collection than Gemma. Circle the number of cars Sam might have in his collection. 97 70 81

---

7. Eloise baked 104 cookies. Germaine baked an **equal** number of cookies. How many cookies did Germain bake?

Germaine baked _____ cookies.

---

8. Reagan picked 110 blueberries. Jackson picked 103 blueberries. Who picked the **greater** number of blueberries? Use numbers or pictures to show your thinking.

Name _____ Date _____

Use the words from the box to complete each sentence. Use numbers, a place value chart, or drawings to show your thinking.

more than	less than	equal to

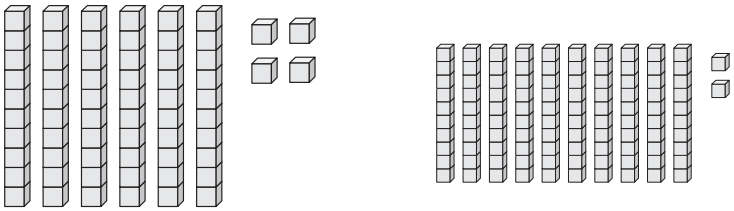
1. 115 is _____ _____ 115.

2. 60 is _____ _____ 90.

3. 100 is _____ _____ 76.

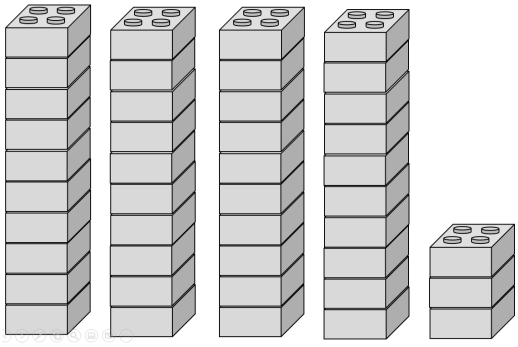
Name _____ Date _____

1. Circle the set that is **fewer than** 100.



2. Circle the set that is **greater than** 109.

3. Valeria built these with blocks.



Avery used **fewer** blocks than Valeria to build her towers.

Circle the number of blocks Avery might have used. 43 39 45

4. Lily read for 107 minutes this week. Her sister, Grace, read for an **equal** number of minutes. How many minutes did Grace read this week?

Grace read for _____ minutes.

Comparison Words

Greater than

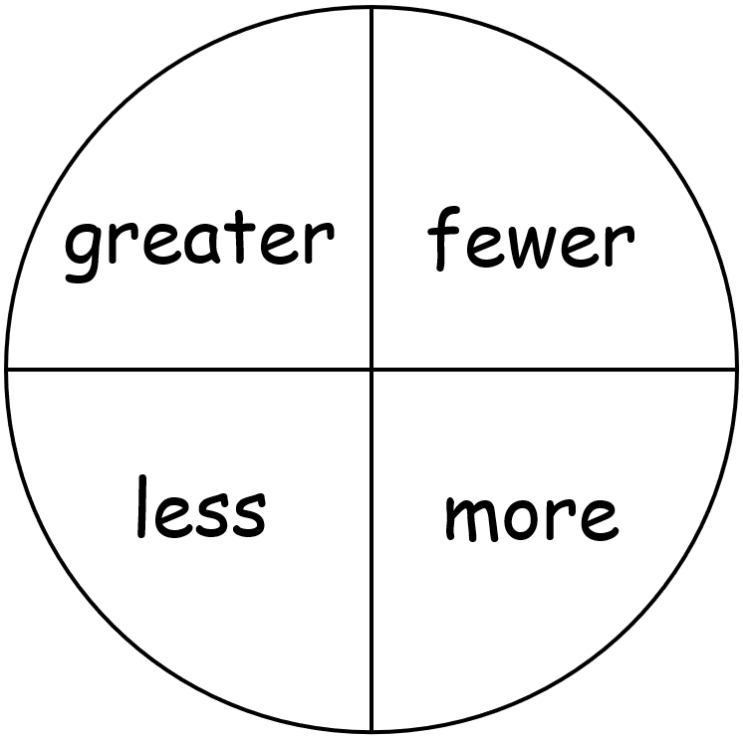
More than

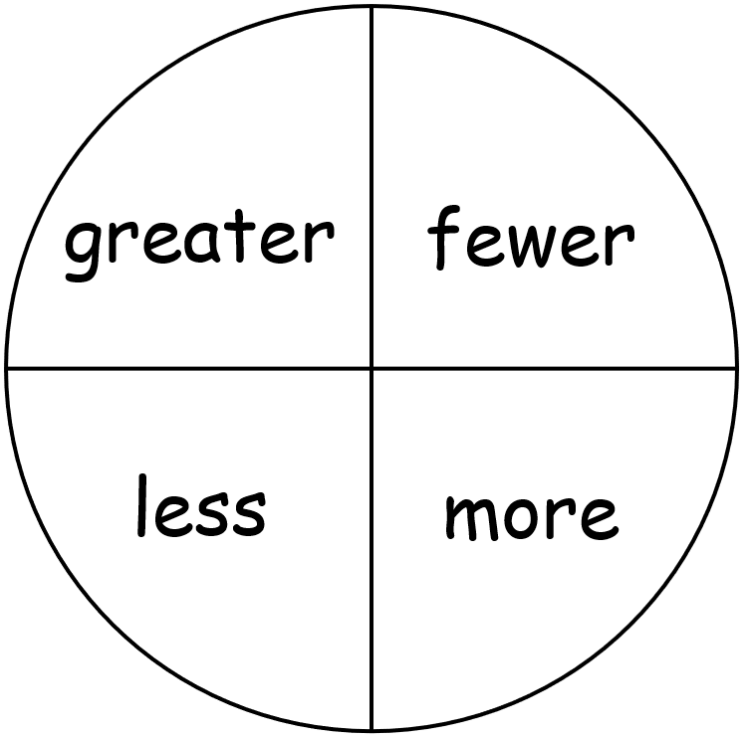
Less than

Fewer than

Equal to

comparison words chart (To be used during Concept Development.)





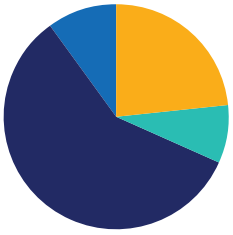
spinner (2 spinners per page. Copy 1 spinner for each pair of students to use during Concept Development.)

Lesson 11

Objective: Order whole numbers up to 120 using place value and open number lines.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(7 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Sprint: +1, –1, +10, –10 **1.5A, 1.5C** (10 minutes)
- Beep-Counting **1.5A** (3 minutes)

Sprint: +1, –1, +10, –10 (10 minutes)

Materials: (S) +1, –1, +10, –10 Sprint

Note: This Sprint reviews the grade-level standard of mentally adding or subtracting 10 and supports students' understanding of place value.

Beep-Counting (3 minutes)

Note: This activity reviews counting and reading numbers to 120.

Write number sequences on the board with missing numbers. Students read the sequence aloud, saying "beep" for the missing number. Then, students say the missing number on the teacher's signal.

Use the following suggested sequence, as time permits:

a. 8, 9, 10, ___
b. 109, 110, 111, ___
c. 30, 29, 28, ___
d. 110, 109, 108, ___
e. 57, 58, __, 60
f. 107, 108, ___, 110
g. 19, 20, ___, 22
h. 117, 118, ___, 120
i. 15, 14, ___, 12
j. 112, 111, ___, 109
k. ___, 5, 6, 7
l. ___, 107, 108, 109

Application Problem (5 minutes)

Materials: (S) Personal white board

Carlos gave each of his two friends, Ana and Juan, 50 raisins. Ana ate 10 of her raisins. Juan got 10 more raisins. How many raisins does each friend have now? Who has more raisins?

Ana	Juan
50 - 10 = 40	50 + 10 = 60

Ana has 40 raisins. Juan has 60 raisins. Juan has more, because 60 > 40.

Note: This Application Problem serves as review from prior lessons in which students found 10 more and 10 less than a number and compared two numbers. Additionally, this problem prepares students to order numbers during today's Concept Development.

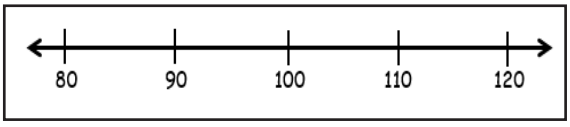
Concept Development (35 minutes)

Materials: (T) Jump rope contest chart (Template) (S) Personal white board

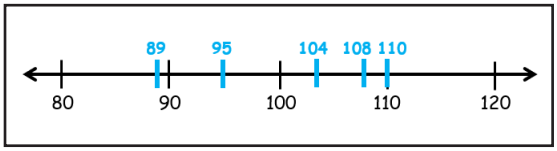
Distribute personal white boards to students.

Part 1: Ordering Numbers on a Number Line

T: Earlier in the school year, we learned ways to order numbers. What are some tools we used?
S: Number line. → Place value chart. → Quick tens.
T: Yes. Today we will use an open number line and place value chart to order numbers. What is an open number line?
S: It is a number line that doesn't have every number written on it. → We pick which numbers to write on it.
T: Draw an open number line on your white board. Write the numbers 80, 90, 100, 110, and 120. Leave space between each number (see example).
S: (Students draw open number lines.)



T: 80, 90, 100, 110, and 120 are the helper numbers on our number line. How might these numbers help us?
S: They help us know where to write other numbers.
T: If we need to put the number 91 on our number line, how can we use the helper numbers?
S: 91 is a little bigger than 90, so we put it just a little to the right of 90.
T: (Display the jump rope contest chart.) A park had a jump rope contest to see who could do the most jumps in a row. Here are the contestants and the number of jumps they did. We will use your open number line to order these numbers. Where will we write Joey's number of jumps?



S: 104 goes between 100 and 110. → It's closer to 100.

T: Where do we write Miko's number of jumps?

S: 108 is also between 100 and 110. → It's closer to 110.

T: Record all of the numbers on your open number line. Talk to a partner as needed.

S: (Students record numbers on their number lines.)

T: Now that the numbers are on our open number line, how do we order them from least to greatest?

S: They're already in order! The smallest numbers are on the left, closest to 80. The biggest numbers are on the right, close to 120.

T: Today and every day, we can use an open number line to order numbers.

Part 2: Ordering Numbers on a Place Value Chart

T: Another way to order numbers is by using a place value chart. Erase your white boards and draw a place value chart like mine (see right).

Hundreds	Tens	Ones

S: (Draw place value chart.)

T: How can we use this chart to order our numbers from least to greatest?

S: Write each number on the chart.

T: How do we write Joey's number?

S: 1 goes in the hundreds place. 0 goes in the tens place. 4 goes in the ones place.

T: Record each contestant's number on the place value chart. Talk to your partners as needed.

S: (Students record numbers on their place value charts.)

	Hundreds	Tens	Ones
Joey	1	0	4
Miko	1	0	8
Andre		8	9
Deja		9	5
Luna	1	1	0

T: Now that we've written all of our numbers, how do we order them from least to greatest?

S: Start with the numbers that don't have hundreds since they're smaller: 89 and 95. 89 is smallest because it only has 8 tens. 95 is next because it has 9 tens.

T: (Record 89 and 95 on the board.) What comes next?

S: I'm looking at the numbers that have hundreds. Either 104 or 108 comes next because they don't have any tens.

T: Help Student A. Which number comes next, 104 or 108?

S: 104. It's less than 108 because it has fewer ones. Then, we write 108.

T: (Record 104 and 108 on the board.) Which number comes last?

S: 110. It's the only number to have a hundred and a ten.

T: Today and every day, you can use an open number line or a place value chart to order numbers.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

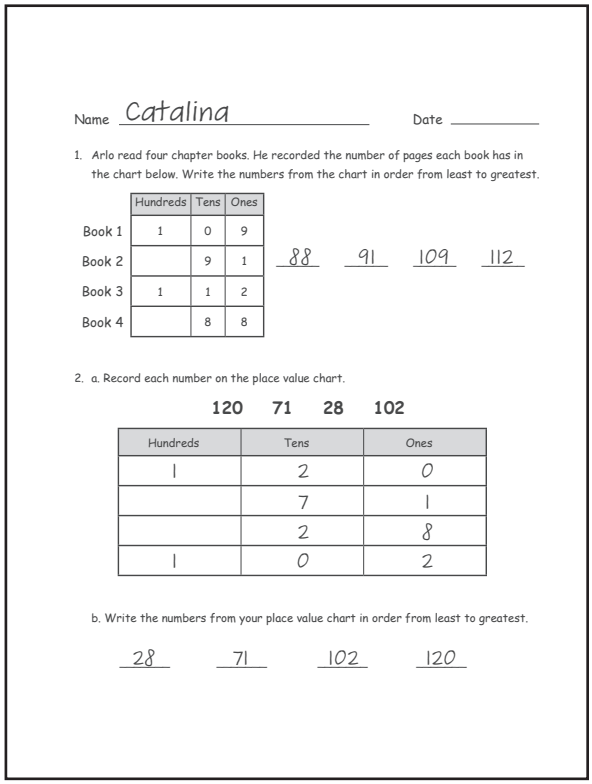
As students determine the placement of numbers on the open number line, positional words and phrases such as *between*, *next to*, and *to the right of* may be used. Support students, including some emergent bilingual students, with understanding positional language by using gestures and a visual model. Provide a sample number line labeled with the numbers 80, 90, 100, 110, and 120. To emphasize the meaning of "*between 100 and 110*", for example, point to the space in between those numbers on the sample number line.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Students who need more support may benefit from creating drawings to compare the numbers on the place value chart and to determine their order. For example, consider inviting students to create a quick drawing for the numbers 104 and 108 using a square for one hundred and quick ones. Students can reference these visuals and use them to distinguish which number is greater.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.



Name Catalina Date

1. Arlo read four chapter books. He recorded the number of pages each book has in the chart below. Write the numbers from the chart in order from least to greatest.

	Hundreds	Tens	Ones
Book 1	1	0	9
Book 2		9	1
Book 3	1	1	2
Book 4		8	8

88 91 109 112

2. a. Record each number on the place value chart.

120 71 28 102

Hundreds	Tens	Ones
1	2	0
	7	1
	2	8
1	0	2

b. Write the numbers from your place value chart in order from least to greatest.

28 71 102 120

Student Debrief (7 minutes)

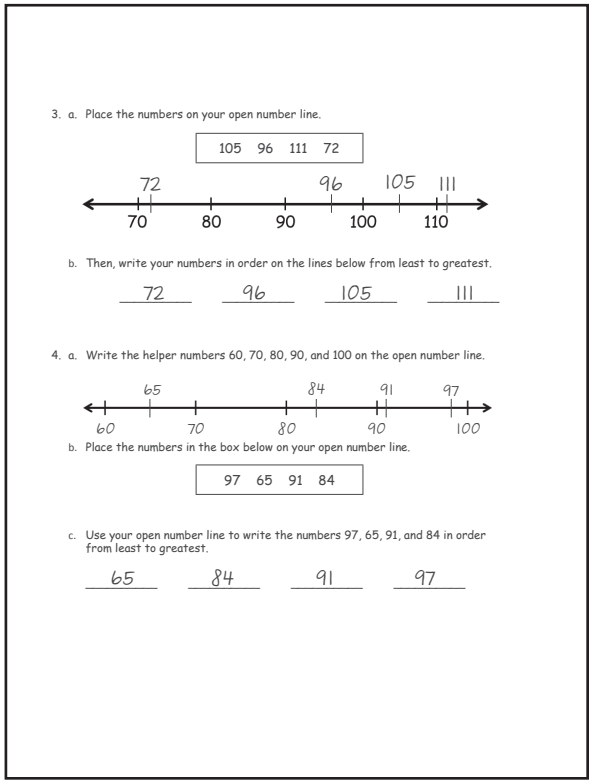
Lesson Objective: Order whole numbers up to 120 using place value and open number lines.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. Which numbers were simplest to put in order from least to greatest? Which numbers were trickiest to put in order? What tips would you give a friend trying to order numbers?
- Do you prefer to order numbers using a place value chart or number line? Why?
- What other strategies might we use to order numbers?
- In what real-life situations might we need to order numbers from least to greatest?



3. a. Place the numbers on your open number line.

105 96 111 72

b. Then, write your numbers in order on the lines below from least to greatest.

72 96 105 111

4. a. Write the helper numbers 60, 70, 80, 90, and 100 on the open number line.

b. Place the numbers in the box below on your open number line.

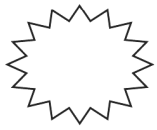
97 65 91 84

c. Use your open number line to write the numbers 97, 65, 91, and 84 in order from least to greatest.

65 84 91 97

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

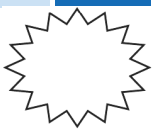
Number Correct: 

A

Name _____ Date _____

*Write the missing number. Pay attention to the addition or subtraction sign.

1.	5 + 1 = ☐		16.	29 + 10 = ☐	
2.	15 + 1 = ☐		17.	9 + 1 = ☐	
3.	25 + 1 = ☐		18.	19 + 1 = ☐	
4.	5 + 10 = ☐		19.	29 + 1 = ☐	
5.	15 + 10 = ☐		20.	39 + 1 = ☐	
6.	25 + 10 = ☐		21.	40 – 1 = ☐	
7.	8 – 1 = ☐		22.	30 – 1 = ☐	
8.	18 – 1 = ☐		23.	20 – 1 = ☐	
9.	28 – 1 = ☐		24.	20 + ☐ = 21	
10.	38 – 1 = ☐		25.	20 + ☐ = 30	
11.	38 – 10 = ☐		26.	27 + ☐ = 37	
12.	28 – 10 = ☐		27.	27 + ☐ = 28	
13.	18 – 10 = ☐		28.	☐ + 10 = 34	
14.	9 + 10 = ☐		29.	☐ – 10 = 14	
15.	19 + 10 = ☐		30.	☐ – 10 = 24	

Number Correct: 

B

Name _____ Date _____

*Write the missing number. Pay attention to the addition or subtraction sign.

1.	4 + 1 = ☐		16.	28 + 10 = ☐	
2.	14 + 1 = ☐		17.	9 + 1 = ☐	
3.	24 + 1 = ☐		18.	19 + 1 = ☐	
4.	6 + 10 = ☐		19.	29 + 1 = ☐	
5.	16 + 10 = ☐		20.	39 + 1 = ☐	
6.	26 + 10 = ☐		21.	40 – 1 = ☐	
7.	7 – 1 = ☐		22.	30 – 1 = ☐	
8.	17 – 1 = ☐		23.	20 – 1 = ☐	
9.	27 – 1 = ☐		24.	10 + ☐ = 11	
10.	37 – 1 = ☐		25.	10 + ☐ = 20	
11.	37 – 10 = ☐		26.	22 + ☐ = 32	
12.	27 – 10 = ☐		27.	22 + ☐ = 23	
13.	17 – 10 = ☐		28.	☐ + 10 = 39	
14.	8 + 10 = ☐		29.	☐ – 10 = 19	
15.	18 + 10 = ☐		30.	☐ – 10 = 29	

Name _____ Date _____

1. Arlo read four chapter books. He recorded the number of pages each book has in the chart below. Write the numbers from the chart in order from least to greatest.

	Hundreds	Tens	Ones
Book 1	1	0	9
Book 2		9	1
Book 3	1	1	2
Book 4		8	8

_____ _____ _____ _____

2. a. Record each number on the place value chart.

120 71 28 102

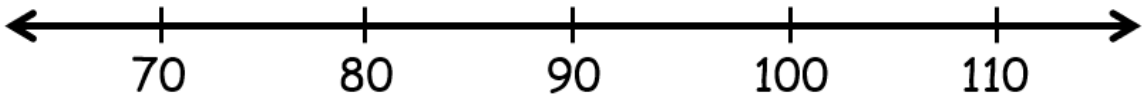
Hundreds	Tens	Ones

b. Write the numbers from your place value chart in order from least to greatest.

_____ _____ _____ _____

3. a. Place the numbers on your open number line.

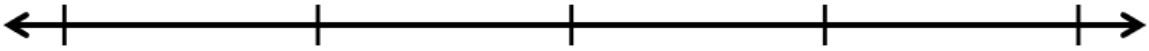
105	96	111	72



b. Then, write your numbers in order on the lines below from least to greatest.

_____ _____ _____ _____

4. a. Write the helper numbers 60, 70, 80, 90, and 100 on the open number line.



b. Place the numbers in the box below on your open number line.

97	65	91	84

c. Use your open number line to write the numbers 97, 65, 91, and 84 in order from least to greatest.

_____ _____ _____ _____

Name _____ Date _____

1. Look at the numbers in the place value chart to answer each question.

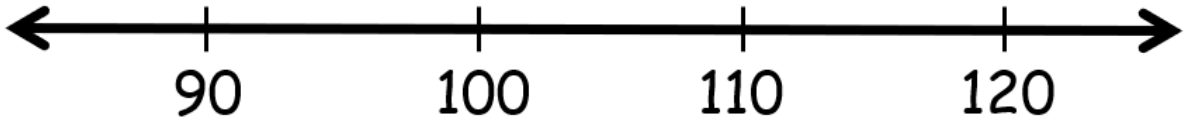
Hundreds	Tens	Ones
1	1	1
	9	1
	8	8
1	0	2

a. Write the numbers from the chart in order from least to greatest.

_____ _____ _____ _____

2. a. Place the numbers in the box on your open number line.

101 88 115 96



b. Which number comes before 96? (circle one)

101 88 115 96

c. Which number comes between 96 and 115? (circle one)

101 88 115 96

d. Write the numbers 101, 88, 115, and 96 in order from least to greatest.

_____ _____ _____ _____

Name _____ Date _____

1. Cara's Candy Shop sold the following amounts of candy bars this week:

   120, 64, 50, 91. Help Cara record these amounts on the place value chart.

Hundreds	Tens	Ones

   a. If you put these numbers in order from least to greatest, which number comes first?

   _____

   b. If you put these numbers in order from least to greatest, which number comes last?

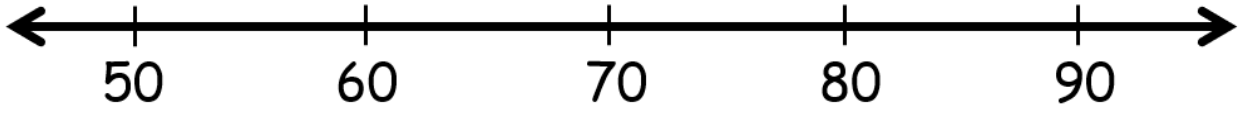
   _____

   c. Write the numbers in order from least to greatest.

   _____ _____ _____ _____

2. a. Place the numbers on your open number line.

88	51	70	65



   b. Then, write your numbers in order from least to greatest on the lines below.

   _____ _____ _____ _____

Jump Rope Contest

Name	Number of Jumps
Joey	104
Miko	108
Andre	89
Deja	95
Luna	110

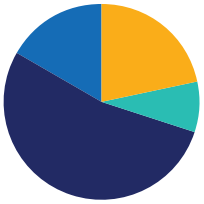
jump rope contest chart (To be used during Concept Development.)

Lesson 12

Objective: Identify 10 more, 10 less, 1 more, and 1 less than any number within 120.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Subtraction with Cards **1.2E, 1.3D** (5 minutes)
- Coin Drop **1.4A, 1.4C** (3 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all of the questions on their most recent Practice Set correctly should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Have students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Subtraction with Cards (5 minutes)

Materials: (S) 1 pack of numeral cards 0–10 (Lesson 3 Fluency Template)

Note: This review activity targets the subtraction fluency for Grade 1. As students play, closely monitor any students who have not performed well on the Practice Sets and Sprints to see if they are able to be successful in this untimed, interactive game. Take advantage of any opportunity to highlight improvement.

- Students combine their digit cards and place them facedown between them.
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.

- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.
- A player wins by having the most cards when the time is up.

Coin Drop (3 minutes)

Materials: (T) 4 dimes, 10 pennies, can

Note: In this activity, students practice adding and subtracting ones and tens within 40. This skill is expanded to numbers within 100 in today's lesson.

T: (Hold up a penny.) Name my coin.
S: A penny.
T: How much is it worth?
S: 1 cent.
T: Listen carefully as I drop coins in my can. Count along in your minds.

Drop in some pennies, and ask how much money is in the can. Take out some pennies, and show them. Ask how much money is still in the can. Continue adding and subtracting pennies for a minute or so. Then, repeat the activity with dimes.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

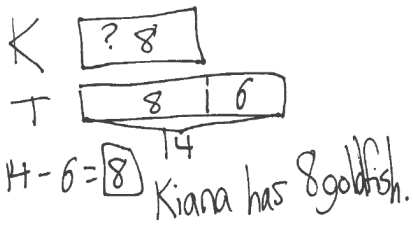
After playing Coin Drop with pennies and then dimes, mix pennies and dimes so that students have to add based on the changing value of the coin. Alternate between naming the coin and the value before dropping the coins. This challenges students and keeps them listening for what comes next.

Many students, including some emergent bilingual students, will benefit from a visual aid displaying the different coins and their values.

Application Problem (5 minutes)

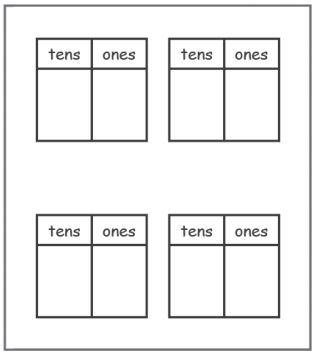
Kiana has 6 fewer goldfish than Tina. Tina has 14 goldfish. How many goldfish does Kiana have?

Note: Today's Application Problem is the last in a series of three problems that use a related context. The three problems can be discussed together during the Student Debrief. As students share strategies and compare and contrast the problem stories, they gain a stronger sense of each particular problem type.



Concept Development (32 minutes)

Materials: (T) 2 pieces of chart paper with two pairs of place value charts as shown (S) Personal white board, place value chart (Template)



Have students sit at their desks with all materials.

T: Draw 62 using a quick ten drawing.
S: (Draw 6 quick tens and 2 circles.)
T: According to your picture, how many tens and ones are in 62?
S: 6 tens and 2 ones.

T: (Write 62 on the double place value chart template.)

T: Show me 1 more than 62.

S: (Draw 1 more circle.)

T: What is 1 more than 62? Say the whole sentence.

S: 1 more than 62 is 63. (Write 63 on the second place value chart.)

T: From 62 to 63, we added 1 more. (Draw an arrow from the first place value chart to the second, and write + 1 above the arrow.)

T: Look at the place value chart. Turn and explain to your partner about what did and did not change.

S: The tens didn't change. They both stayed as 6 tens because we only added 1 more. → The ones changed from 2 to 3 because we added 1 more. 3 is 1 more than 2. → To figure out 1 more, I just have to add 1 more to the ones place! (Note: In Problem 3 of the Problem Set, when dealing with 1 more than 89, the common misconception voiced by the last student is used as a talking point in the Debrief.)

T: Show me 62 with your drawing again.

S: (Show 62.)

T: (Write 62 on a new place value chart.) How can you show *10* more than 62? (Draw an arrow, and write + 10 above it.) Turn and talk to your partner.

S: Just draw 1 more quick ten!

T: Do that.

T: What is 10 more than 62? Say the whole sentence.

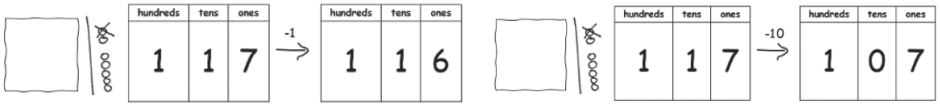
S: 10 more than 62 is 72.

T: (Write 72 into the second place value chart.) Talk to your partner about what changes and what stays the same.

S: The tens changed this time from 6 tens to 7 tens because we added 10 more. → The ones didn't change because we just added 1 ten. → We could add 10 extra circles, but once you get 10, we make them into a quick ten, so why bother? We can add a ten quickly. → I just have to add 1 ten to the tens!

T: We added 10 more to 62 and now have 72.

Repeat the process using *1 less* and *10 less* with 117 as shown.



NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Some students may not be able to imagine adding or subtracting a ten at this point. Support these students with all of the materials used in the lesson,and give them plenty of practice. Their path to abstract thinking may be a little longer than that of other students.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Other students in the class may be able to visualize adding and subtracting ones and tens. Since these students have moved from concrete to abstract thinking, challenge them by giving problems adding or subtracting 2 ones or tens or 3 ones or tens.

Then, follow the suggested sequence:

- 1 less/10 less than 74
- 1 more/1 less than 110

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

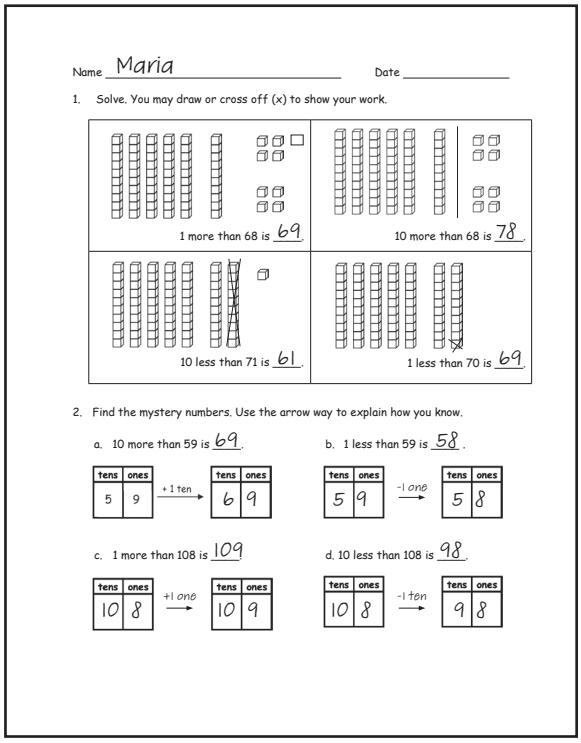
Lesson Objective: Identify 10 more, 10 less, 1 more, and 1 less than any number within 120.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- I say, "When I find 1 more, only the ones digit changes." I'm wrong! Which problem shows that I'm wrong? When am I correct?
- I say, "When I find 1 less, only the ones digit changes." I'm wrong! Which problem shows that I'm wrong again?
- How can you use the place value chart to help you count by ones? By tens?
- How did our fluency activity of Coin Drop relate to today's lesson?
- Look at your Application Problem. How is it similar, and how is it different from other Application Problems you have solved? Share your strategy for beginning to solve the problem.



Name Maria Date

1. Solve. You may draw or cross off (x) to show your work.

1 more than 68 is 69.

10 more than 68 is 78.

10 less than 71 is 61.

1 less than 70 is 69.

2. Find the mystery numbers. Use the arrow way to explain how you know.

a. 10 more than 59 is 69.

tens	ones
5	9

+1 ten →

tens	ones
6	9

b. 1 less than 59 is 58.

tens	ones
5	9

-1 one →

tens	ones
5	8

c. 1 more than 108 is 109.

tens	ones
10	8

+1 one →

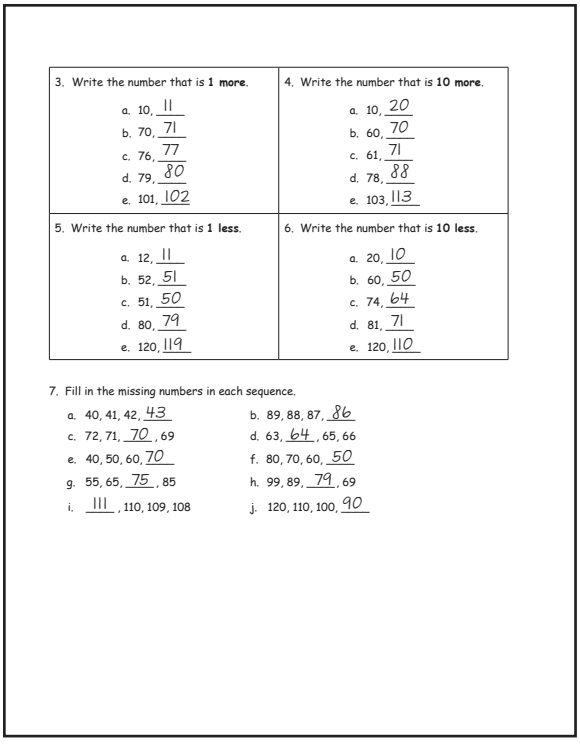
tens	ones
10	9

d. 10 less than 108 is 98.

tens	ones
10	8

-1 ten →

tens	ones
9	8



3. Write the number that is **1 more**.	4. Write the number that is **10 more**.
a. 10, 11	a. 10, 20
b. 70, 71	b. 60, 70
c. 76, 77	c. 61, 71
d. 79, 80	d. 78, 88
e. 101, 102	e. 103, 113
5. Write the number that is 1 less.	**6. Write the number that is 10 less.**
a. 12, 11	a. 20, 10
b. 52, 51	b. 60, 50
c. 51, 50	c. 74, 64
d. 80, 79	d. 81, 71
e. 120, 119	e. 120, 110

7. Fill in the missing numbers in each sequence.

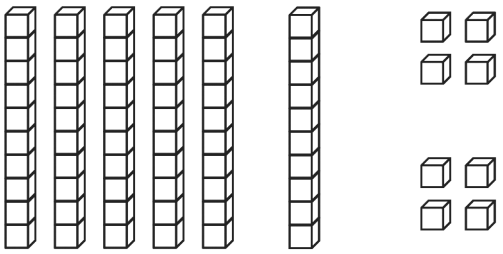
a. 40, 41, 42, 43
b. 89, 88, 87, 86
c. 72, 71, 70, 69
d. 63, 64, 65, 66
e. 40, 50, 60, 70
f. 80, 70, 60, 50
g. 55, 65, 75, 85
h. 99, 89, 79, 69
i. 111, 110, 109, 108
j. 120, 110, 100, 90

Exit Ticket (3 minutes)

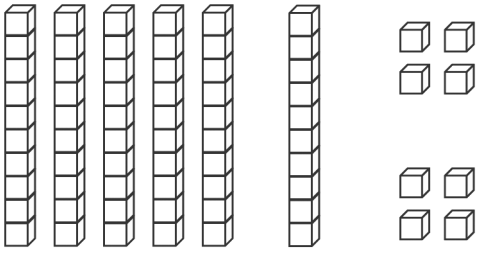
After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

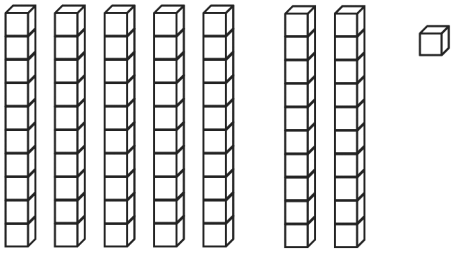
1. Solve. You may draw or cross off (x) to show your work.



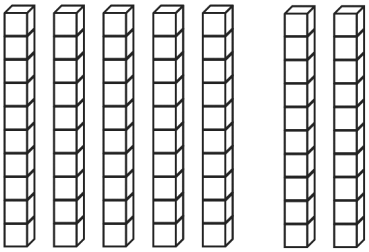
1 more than 68 is _____.



10 more than 68 is _____.



10 less than 71 is _____.



1 less than 70 is _____.

2. Find the mystery numbers. Use the arrow way to explain how you know.

a. 10 more than 59 is _____.

tens	ones
5	9

+ 1 ten →

tens	ones

b. 1 less than 59 is _____ .

tens	ones

tens	ones

c. 1 more than 108 is _____.

tens	ones

tens	ones

d. 10 less than 108 is _____.

tens	ones

tens	ones

3. Write the number that is **1 more**. a. 10, _____ b. 70, _____ c. 76, _____ d. 79, _____ e. 101, _____	4. Write the number that is **10 more**. a. 10, _____ b. 60, _____ c. 61, _____ d. 78, _____ e. 103, _____
5. Write the number that is **1 less**. a. 12, _____ b. 52, _____ c. 51, _____ d. 80, _____ e. 120, _____	6. Write the number that is **10 less**. a. 20, _____ b. 60, _____ c. 74, _____ d. 81, _____ e. 120, _____

7. Fill in the missing numbers in each sequence.

a. 40, 41, 42, _____
b. 89, 88, 87, _____
c. 72, 71, _____ , 69
d. 63, _____ , 65, 66
e. 40, 50, 60, _____
f. 80, 70, 60, _____
g. 55, 65, _____ , 85
h. 99, 89, _____, 69
i. _____ , 110, 109, 108
j. 120, 110, 100, _____

Name _____ Date _____

1. Find the mystery numbers. Use the arrow way to show how you know.

a. 1 less than 69 is _____.

tens	ones

tens	ones

b. 10 more than 69 is _____.

tens	ones

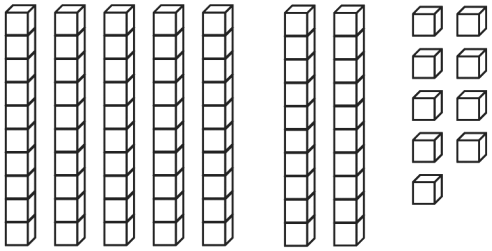
tens	ones

2. Write the number that is **1 more**. a. 40, _____ b. 86, _____ c. 100, _____	3. Write the number that is **10 more**. a. 50, _____ b. 62, _____ c. 96, _____
4. Write the number that is **1 less**. a. 75, _____ b. 70, _____ c. 110, _____	5. Write the number that is **10 less**. a. 80, _____ b. 90, _____ c. 104, _____

Name _____ Date _____

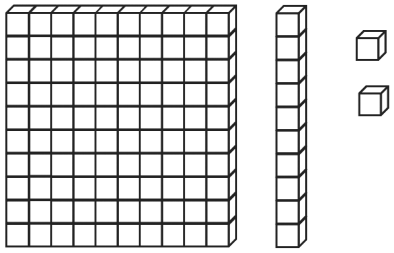
1. Solve. You may draw or cross off (x) to show your work.

a.



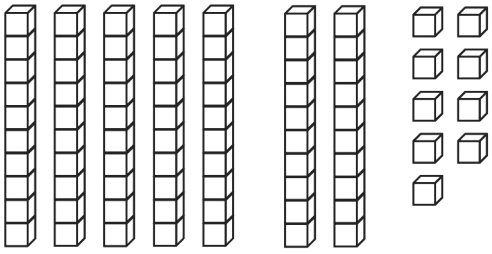
10 more than 79 is _____.

b.



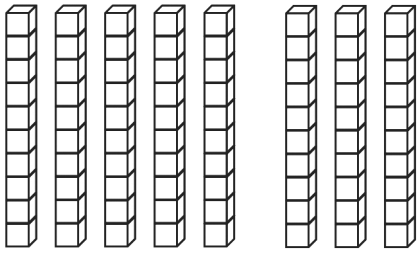
10 less than 112 is _____.

c.



1 more than 79 is _____.

d.



1 less than 80 is _____.

2. Find the mystery numbers. You may make a drawing to help solve, if needed.

a. 10 more than 75 is _____.

tens	ones
7	5

+ 10 →

tens	ones

b. 1 more than 75 is _____ .

tens	ones

→

tens	ones

c. 1 more than 101 is _____.

hundreds	tens	ones

hundreds	tens	ones

d. 10 less than 101 is _____.

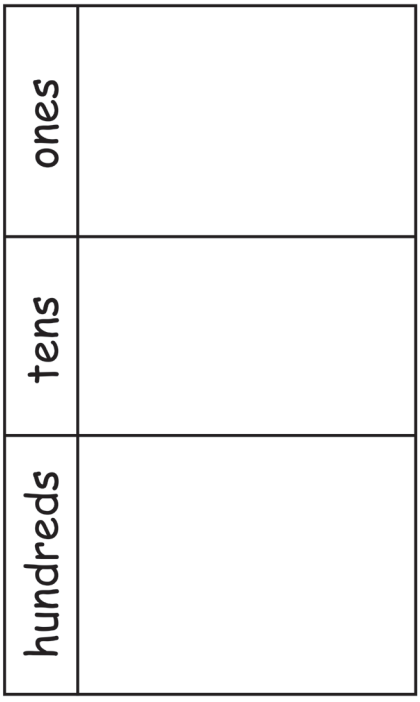
hundreds	tens	ones

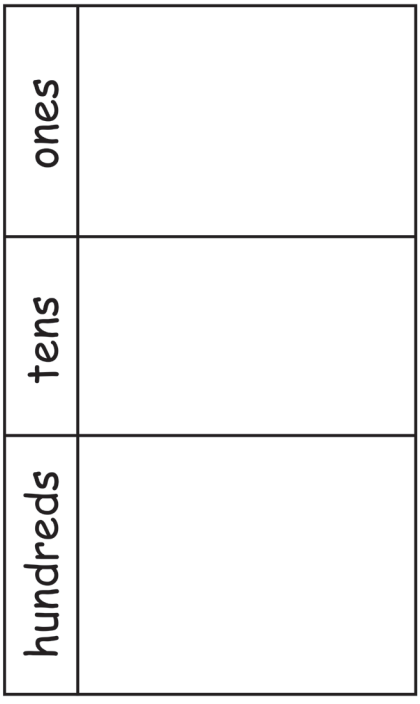
hundreds	tens	ones

3. Write the number that is **1 more**. a. 40, _____ b. 50, _____ c. 65, _____ d. 69, _____ e. 110, _____	4. Write the number that is **10 more**. a. 60, _____ b. 70, _____ c. 77, _____ d. 89, _____ e. 110, _____
5. Write the number that is **1 less**. a. 53, _____ b. 73, _____ c. 71, _____ d. 80, _____ e. 107, _____	6. Write the number that is **10 less**. a. 50, _____ b. 60, _____ c. 84, _____ d. 91, _____ e. 107, _____

7. Fill in the missing numbers in each sequence.

a. 50, 51, 52, _____
b. 79, 78, 77, _____
c. 62, 61, _____, 59
d. 83, _____, 85, 86
e. 60, 70, 80, _____
f. 100, 90, 80, _____
g. 57, 67, _____, 87
h. 89, 79, _____, 59
i. _____, 102, 101, 100
j. _____, 115, _____, 117





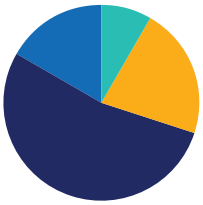
place value chart

Lesson 13

Objective: Use the symbols >, =, and < to compare numbers to 100.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Coin Drop **1.4A, 1.4C** (3 minutes)
- True or False Number Sentences **1.2G, 1.3D, 1.5E** (5 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Help students become aware of their improvement by asking them to quickly stand if they tried a new level or improved their score from the previous day.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

For students who are still on Practice Set A, a Practice Set (completed aloud) that is privately administered may help them be more successful. The pencil and paper can hold back some students who may have trouble with their fine motor skills.

Coin Drop (3 minutes)

Materials: (T) 10 dimes, 10 pennies, can

Note: This activity reviews addition and subtraction of ones and tens within 100.

Today, start with 5 dimes in the can. Drop a penny or a dime into the can, asking students the total after each drop of one coin. Ask them to say, “1 cent more is 51 cents,” or “10 cents more is 60 cents.” For today, perhaps limit it to 1 more and 10 more.

True or False Number Sentences (5 minutes)

Materials: (T/S) Personal white board

Note: This activity provides practice with Grade 1's fluency, while reviewing the inequality symbols that were presented in Module 4 Topic B.

Review the symbols =, >, and <. Write true and false number sentences using the symbols. On the signal, students say whether the number sentence is true or false. Then, choose a student who answered correctly to prove it.

T (Write 5 = 7.) Is this number sentence true or false? (Pause, and then signal.)
S: False.
T: Why? Student A.
S: 5 is less than 7.
T: (Write 8 = 6 + 2.) True or false? (Pause, and then signal.)
S: True.
T: Why? Student B.
S: 6 + 2 is 8, and 8 *is the same as* 8.
T: (Write 8 = 8 underneath 8 = 6 + 2.)

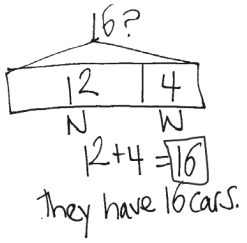
Continue with the following suggested sequence. Be sure to space the number sentences so students can see the two expressions, and provide time for students to solve on their personal white boards as needed. Before completing the > and < columns (see below), write the symbol in the middle of the board, and review its meaning.

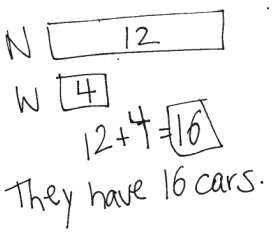
a. 6 = 8 – 2
b. 3 = 8 – 5
c. 5 +1 = 4 + 1
d. 5 + 1 = 4 + 2
e. 5 > 6
f. 7 > 4
g. 8 > 7
h. 6 > 9
i. 8 < 9
j. 6 < 5
k. 6 < 3 + 3
l. 5 + 2 < 2 + 5

Application Problem (5 minutes)

Nikil has 12 toy cars. Willie has 4 toy cars. When Nikil and Willie play, how many toy cars do they have?

Note: Today, the very simple *join with result unknown* problem type is revisited. Please use this to highlight that students might use either a double or single strip to model as is pictured to the right.





Concept Development (32 minutes)

Materials: (T) Chart paper, comparison cards (Template), tape (S) Personal white board, place value chart (Lesson 3 Template 2), comparison cards (Template)

Gather students in the meeting area with their materials.

T: (On chart paper, write 100 and 50 in the place value charts with room between them to insert a comparison card.) Which number is greater?

S: 100.

T: How do you know?

S: 50 has 5 tens, and 100 has 10 tens. → When you count up, you say 50 a long time before you say 100. → 10 tens is 5 tens more than 5 tens. → You need to add more to 50 to make 100.

T: (Show < and > cards.) Which symbol should I use?

S: Greater than! → The one on the right.

T: (Tape the > symbol between the two place value charts.) What are some of the ways you help yourself remember that *this* (point to >) is the greater than symbol?

S: The side with two endpoints is near the greater number. The side with 1 endpoint is near the smaller one.

T: (Tape the other two symbol cards to the chart paper.) What is the name of this symbol?

S: Less than!

T: This one?

S: Equal to!

T: Choose the symbol you think I should use to compare the two numbers I write. Wait for the signal.

T: (Write 60 and 90. Pause before giving the signal. Add the < symbol between 60 and 90.) Let's read our math sentence together.

S/T: 60 is less than 90.

Repeat the above process with the following suggested sequence of numbers: 59 and 52, 80 and 70, 49 and 94, 7 tens and 6 tens 8 ones, 78 ones and 8 tens, 67 ones and 6 tens, 7 tens and 6 tens 10 ones, 10 tens and 90, and 8 tens 2 ones and 7 tens and 15 ones.

If students could use more practice, invite them to play Compare It! with a partner.

- Each partner writes a number from 0 to 100 on her white board, without showing her partner.
- When both are ready, they show their boards.
- For the first round, Partner A uses the cards to put the symbol between the boards.
- Partner B reads the true number sentence that was made. (Demonstrate with the number sentence on the board.)

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

As students work on the sequence of numbers, be sure they are reading the math sentence out loud once they choose the symbol to compare the numbers. Being able to read the sentence properly demonstrates they have developed proficiency in understanding the difference between the symbols.

For students who may need more support, including some emergent bilingual students, provide them with sentence frames such as ____ is greater than _____ and _____ is less than _____.

At the end of the first round, have partners use Partner B's cards. Alternate for each round until the students have played for four minutes. During that time, circulate and notice which students are successful and which students may need more support. Encourage students to make the game more challenging by varying how they represent the number, using quick tens, place value charts, and writing the numbers as tens and ones.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

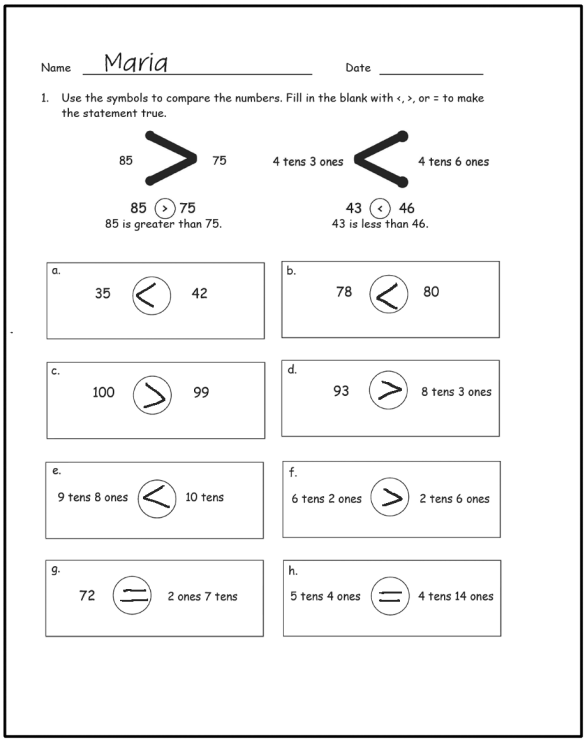
Lesson Objective: Use the symbols >, =, and < to compare numbers to 100.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1(g). How did you solve this problem? Explain your thinking.
- Which problem was the trickiest in the Problem Set to compare? What made it tricky, and how did you or your partner solve it? If you were going to give a friend advice on how to solve these kinds of tricky comparisons, what would you suggest to him?
- Share a comparison problem that you and your partner created during the Compare It! activity.



Name Maria Date

1. Use the symbols to compare the numbers. Fill in the blank with <, >, or = to make the statement true.

85 > 75 — 85 (>) 75 — 85 is greater than 75.

4 tens 3 ones < 4 tens 6 ones — 43 (<) 46 — 43 is less than 46.

a. 35 < 42

b. 78 < 80

c. 100 > 99

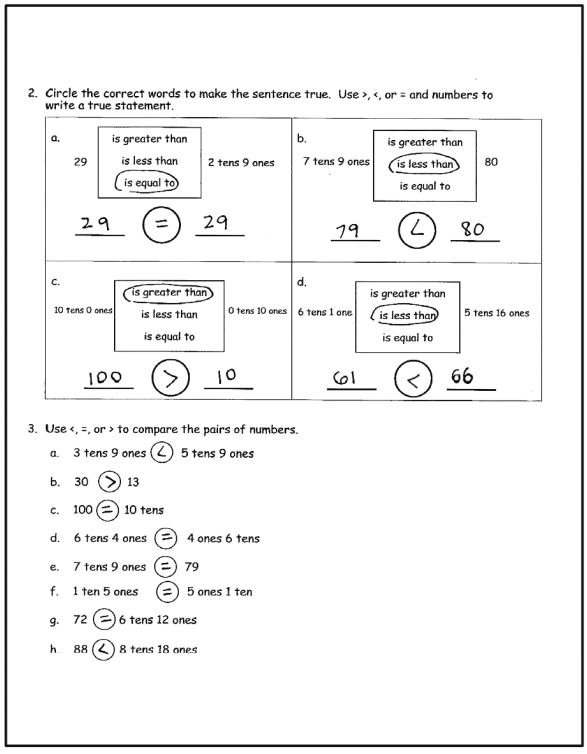
d. 93 > 8 tens 3 ones

e. 9 tens 8 ones < 10 tens

f. 6 tens 2 ones > 2 tens 6 ones

g. 72 = 2 ones 7 tens

h. 5 tens 4 ones = 4 tens 14 ones



2. Circle the correct words to make the sentence true. Use >, <, or = and numbers to write a true statement.

a. 29 — is greater than / is less than / (is equal to) — 2 tens 9 ones
29 = 29

b. 7 tens 9 ones — is greater than / (is less than) / is equal to — 80
79 < 80

c. 10 tens 0 ones — (is greater than) / is less than / is equal to — 0 tens 10 ones
100 > 10

d. 6 tens 1 one — is greater than / (is less than) / is equal to — 5 tens 16 ones
61 < 66

3. Use <, =, or > to compare the pairs of numbers.

a. 3 tens 9 ones (<) 5 tens 9 ones
b. 30 (>) 13
c. 100 (=) 10 tens
d. 6 tens 4 ones (=) 4 ones 6 tens
e. 7 tens 9 ones (=) 79
f. 1 ten 5 ones (=) 5 ones 1 ten
g. 72 (=) 6 tens 12 ones
h. 88 (<) 8 tens 18 ones

- With your partner, share how you remember the meaning of each symbol.
- How did today's Fluency Practice help you with our lesson? Explain your thinking.
- Look at your Application Problem. Share your drawing and your solution. How did your drawing help you solve the problem? How is your drawing similar to or different from your partner's drawing?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Use the symbols to compare the numbers. Fill in the blank with <, >, or = to make the statement true.

85 > 75

85 is greater than 75.

4 tens 3 ones < 4 tens 6 ones

43 < 46

43 is less than 46.

a. 35 ◯ 42

b. 78 ◯ 80

c. 100 ◯ 99

d. 93 ◯ 8 tens 3 ones

e. 9 tens 8 ones ◯ 10 tens

f. 6 tens 2 ones ◯ 2 tens 6 ones

g. 72 ◯ 2 ones 7 tens

h. 5 tens 4 ones ◯ 4 tens 14 ones

2. Circle the correct words to make the sentence true. Use >, <, or = and numbers to write a true statement.

a. 29 | is greater than / is less than / is equal to | 2 tens 9 ones

b. 7 tens 9 ones | is greater than / is less than / is equal to | 80

c. 10 tens 0 ones | is greater than / is less than / is equal to | 0 tens 10 ones

d. 6 tens 1 one | is greater than / is less than / is equal to | 5 tens 16 ones

3. Use <, =, or > to compare the pairs of numbers.

a. 3 tens 9 ones ◯ 5 tens 9 ones
b. 30 ◯ 13
c. 100 ◯ 10 tens
d. 6 tens 4 ones ◯ 4 ones 6 tens
e. 7 tens 9 ones ◯ 79
f. 1 ten 5 ones ◯ 5 ones 1 ten
g. 72 ◯ 6 tens 12 ones
h. 88 ◯ 8 tens 18 ones

Name _____ Date _____

Circle the correct words to make the sentence true. Use >, <, or = and numbers to write a true statement.

a. 36 | is greater than / is less than / is equal to | 6 tens 3 ones

_____ ◯ _____

b. 90 | is greater than / is less than / is equal to | 8 tens 9 ones

_____ ◯ _____

c. 52 | is greater than / is less than / is equal to | 5 tens 2 ones

_____ ◯ _____

d. 4 tens 2 ones | is greater than / is less than / is equal to | 3 tens 14 ones

_____ ◯ _____

Name _____ Date _____

1. Use the symbols to compare the numbers. Fill in the blank with <, >, or = to make the statement true.

62 (>) 57

62 is greater than 57.

56 (<) 59

56 is less than 59.

a. 43 ◯ 35

b. 60 ◯ 86

c. 10 tens ◯ 99

d. 5 tens 4 ones ◯ 54

e. 7 tens 9 ones ◯ 9 tens 7 ones

f. 1 ten 3 ones ◯ 31

g. 3 tens 0 ones ◯ 2 tens 10 ones

h. 3 tens 5 ones ◯ 2 tens 17 ones

2. Fill in the correct words from the box to make the sentence true. Use >, <, or = and numbers to write a true statement.

is greater than	is less than	is equal to

a. 42 _____ 1 ten 2 ones

_____ ◯ _____

b. 6 tens 7 ones _____ 5 tens 17 ones

_____ ◯ _____

c. 37 _____ 73

_____ ◯ _____

d. 2 tens 14 ones _____ 4 ones 2 tens

_____ ◯ _____

e. 9 ones 5 tens _____ 9 tens 5 ones

_____ ◯ _____

>	<	=	<
>	<	=	>
>	<	=	=
>	<	=	

comparison cards, page 1. (Print double-sided on cardstock. Distribute each of the three cards to students.)

less than	equal to	less than	greater than
greater than	equal to	less than	greater than
equal to	equal to	less than	greater than
	equal to	less than	greater than

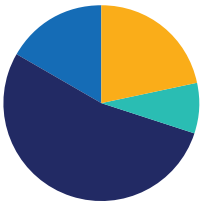
comparison cards, page 2. (Print double-sided on cardstock. Distribute each of the three cards to students.)

Lesson 14

Objective: Use concrete models to determine the sum of a multiple of 10 and a one-digit number in sums up to 99.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Subtraction with Cards **1.2E, 1.3D** (5 minutes)
- Beep Counting by Ones and Tens **1.2D, 1.5C** (3 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Help students realize they have improved by asking them to quickly stand if they tried a new level or improved their score from the previous day.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for students who finish early, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Subtraction with Cards (5 minutes)

Materials: (S) 1 pack of numeral cards 0–10 (Lesson 3 Fluency Template)

Note: This review activity targets subtraction fluency. As students play, closely monitor any students who have not performed well on the Practice Sets and Sprints to see if they are able to be successful in this untimed, interactive game. Take advantage of any opportunity to highlight students' improvement.

- Students combine their numeral cards and place them facedown between them.
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.
- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.

- A player wins by having the most cards when time is up.

Beep Counting by Ones and Tens (3 minutes)

Say a series of four numbers, but replace one of the numbers with the word beep (e.g., 1, 2, 3, 4, beep). When signaled, students say the number that was replaced by the word beep in the sequence. Scaffold number sequences, beginning with smaller numbers that do not cross decades and moving to larger numbers that do cross decades. Choose sequences that count forward and backward by ones and tens within 100.

Suggested sequences: 10, 11, 12, 13, beep; 20, 21, 22, beep; 40, 39, 38, beep; 30, 29, 28, beep; 0, 10, 20, beep; 4, 14, 24, beep; 40, 30, 20, beep; 39, 29, 19, beep. Continue with similar sequences, changing the sequential placement of the beep.

Application Problem (5 minutes)

Eliza has 10 red grapes and 4 green grapes. Amari has 6 red grapes and 10 green grapes.

How many grapes does each child have? Who has more?

I know 10 and 4 make 14 because I wrote it on my place value chart.
I also know 6 and 10 make 16. That means Amari has more grapes.

Tens	Ones
1	4

Tens	Ones
1	6

Note: This problem reviews composing a ten and some ones to make a teen number, which is a Kindergarten concept. This prepares students for today's lesson in which they add multiples of ten to a single-digit number. Additionally, this problem reviews the previous concept of comparing numbers within 100.

Concept Development (32 minutes)

Materials: (T) Hide Zero cards (Lesson 3 Template), 1 pack of numeral cards 0–10 (Lesson 3 Fluency Template) (S) 10 ten-sticks and 20 loose cubes (one set per pair of students), personal white board

Part 1: Adding Tens and Ones

Invite students to gather in the meeting area.

T: Mountainside School is collecting canned goods for the local food shelter. The first grade students collect 20 small cans and 8 large cans. How can we use our ten-sticks or loose cubes to show the number of small cans they collected?

S: Use 2 ten-sticks.

T: Place 2 ten-sticks in front of you. How can we use ten-sticks or loose cubes to show the number of large cans they collected?

S: Use 8 loose cubes.

T: Place 8 loose cubes in front of you. How many cans did the first grade students collect in all? Use your ten-sticks to find the total.
S: (Add 20 and 8 to get a total of 28.)
T: How did you find the total?
S: I counted 10, 20, 21, 22, 23, 24, 25, 26, 27, 28.
T: One way to find the total is to count our cubes by tens and ones. Let's touch and count our ten-sticks and loose ones together to see if we get the same amount.
T/S: 10, 20, 21, 22, 23, 24, 25, 26, 27, 28.
T: We can also place our ten-sticks and loose ones on a place value chart. Sit with your partner. Partner 1, draw a place value chart on your personal white board. Partner 2, place 2 ten-sticks in the tens place and 8 loose cubes in the ones place.
S: (Partner 1 students draw a place value chart. Partner 2 students place 2 ten-sticks and 8 loose cubes on the place value chart.)
T: Next, work with your partner to write a number sentence to match the ten-sticks and loose ones on your place value chart.
S: (Write 20 + 8 = 28.)
T: What number sentence did you write?
S: 20 + 8 = 28.
T: When we add 20 + 8, what happens to the zero in 20?
S: The 8 hides it.
T: (Model putting together and taking apart 20 and 8 using the Hide Zero cards.)

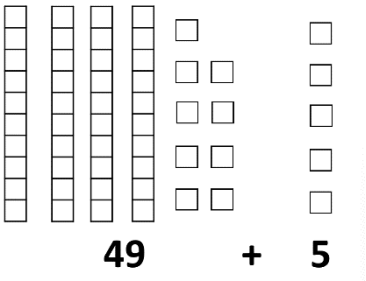
NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Counting aloud together with the support of concrete manipulatives helps students, including some emergent bilingual students, rehearse the counting sequence while also connecting the count to the value of each block. In addition, doing this provides a low-risk way for all students to practice counting by tens and ones.

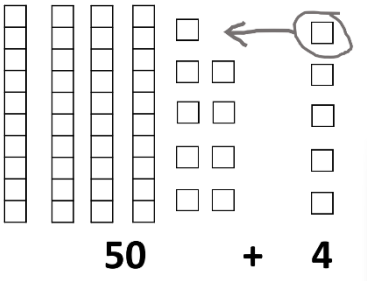
Challenge partners to work together to solve each of the following problems. Encourage them to use ten-sticks and loose ones (with or without a place value chart). Then, ask partners to record an addition number sentence to match their work.

- The second grade students collect 40 small cans and 6 large cans. How many cans do they collect in all?
- The third grade students collect 30 small cans and 3 large cans. How many cans do they collect in all?

Part 2: Adding a Two-Digit and One-Digit Number



T: The fourth grade students at Mountainside School collect 49 small cans and 5 large cans. Partners, use your ten-sticks and loose cubes to build these amounts.
S: (Build 49 and 5 using ten-sticks and loose cubes.)
T: How many small cans did the fourth grade students collect?
S: 49.
T: How many large cans did the fourth grade students collect?
S: 5.
T: (Write 49 + 5 on the board.) Work with your partner to find the total number of cans they collected.
S: (Find the total, 54.)
T: How did you get your solution?
S: I counted each cube. → I moved one loose cube over to the 9 loose cubes to make a ten. Then, I counted the tens and loose ones.



T: There are many ways to solve this problem. One way is to make the next ten. Move one loose cube to the 9 loose cubes. (Model this by using cubes.) Now, instead of having 49 + 5, we have 50 + 4. (Write 50 + 4 on the board.) What is 50 + 4?
S: 54.
T: (Model putting together and taking apart 50 and 4 using the Hide Zero cards.)

Challenge partners to work together to solve each of the following problems. Encourage them to model the problem with cubes and then to solve it by making the next ten. For an extension, ask partners to record a number sentence to match their work.

- The fifth grade students collect 19 small cans and 4 large cans. How many cans do they collect in all?
- The Kindergarten students collect 28 small cans and 6 large cans. How many cans do they collect in all?

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

When students work with a partner, they hear the different ways their peers think about applying understanding of place value to solve addition problems. Hearing other talk helps students, including some emergent bilingual students, understand and acquire language about this topic.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Use concrete models to determine the sum of a multiple of 10 and a one-digit number in sums up to 99.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

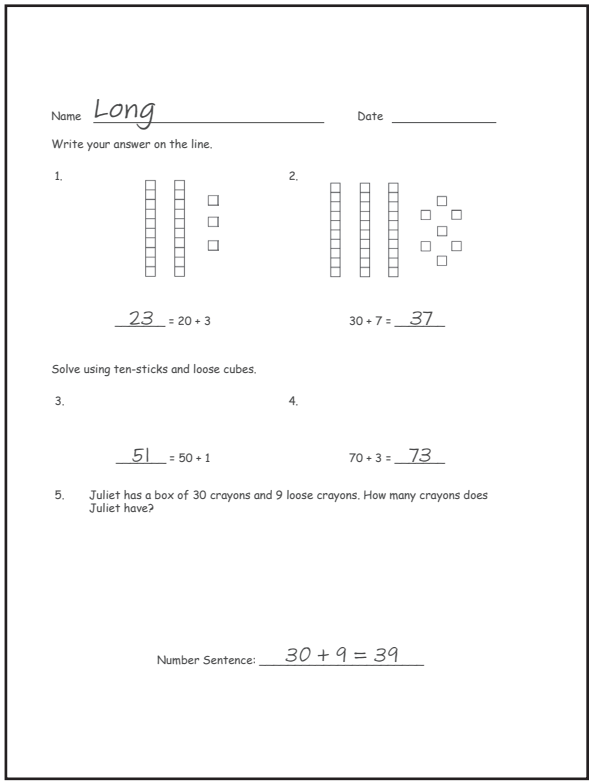
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How did you find the total for Problem 1?
- How did you use your ten-sticks and loose ones to solve Problem 3?
- How is solving Problem 6 different from solving Problem 3?
- Why is making the next ten a helpful strategy when adding?
- Look at Problem 8. What number sentence could you write to represent your work? Is there a different number sentence you could have written to match this problem?

Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to students.



Name Long Date

Write your answer on the line.

1.

23 = 20 + 3

2.

30 + 7 = 37

Solve using ten-sticks and loose cubes.

3.

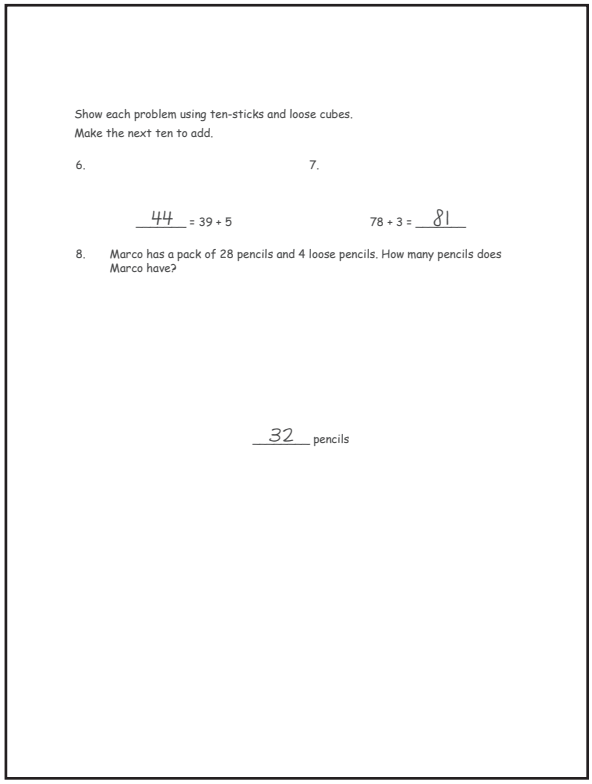
51 = 50 + 1

4.

70 + 3 = 73

5. Juliet has a box of 30 crayons and 9 loose crayons. How many crayons does Juliet have?

Number Sentence: 30 + 9 = 39



Show each problem using ten-sticks and loose cubes.
Make the next ten to add.

6.

44 = 39 + 5

7.

78 + 3 = 81

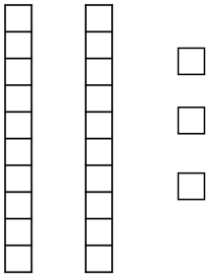
8. Marco has a pack of 28 pencils and 4 loose pencils. How many pencils does Marco have?

32 pencils

Name _____ Date _____

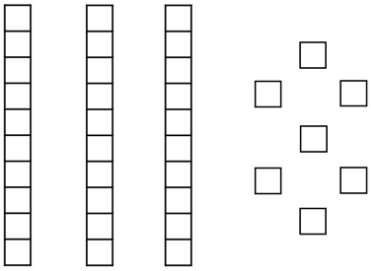
Write your answer on the line.

1.



_____ = 20 + 3

2.



30 + 7 = _____

Solve using ten-sticks and loose cubes.

3.

_____ = 50 + 1

4.

70 + 3 = _____

5. Juliet has a box of 30 crayons and 9 loose crayons. How many crayons does Juliet have?

Number Sentence: _____

Show each problem using ten-sticks and loose cubes.

Make the next ten to add.

6. _____ = 39 + 5

7. 78 + 3 = _____

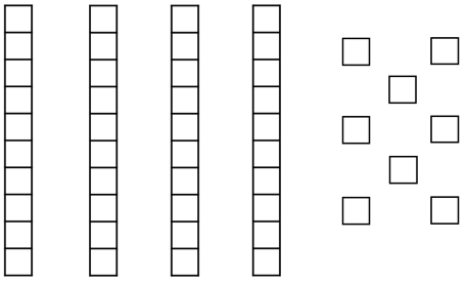
8. Marco has a pack of 28 pencils and 4 loose pencils. How many pencils does Marco have?

_____ pencils

Name _____ Date _____

Add. Write your answer on the line.

1.



40 + 8 = _____

Solve using ten-sticks and loose cubes.

2.

_____ = 60 + 7

Show the problem using ten-sticks and loose cubes.

Make the next ten to add.

3. Zoe has a box of 18 crayons and 8 loose crayons. How many crayons does Zoe have?

_____ crayons

Name _____ Date _____

Add. Write your answer on the line.

1. 30 + 5 = _____

Use cubes or draw quick tens and quick ones to represent the problem.

Make the next ten to add. Write a number sentence to show your work.

2. Molly has 49 whole pencils and 3 broken pencils. How many pencils does Molly have?

_____ pencils

Topic C

Coins and Their Values

1.4A, 1.4B, 1.4C, 1.5B

Focus Standards:		1.4A	Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.
		1.4B	Write a number with the cent symbol to describe the value of a coin.
		1.4C	Use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.
		1.5B	Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.
Instructional Days:		10	
Coherence	**-Links from:**	G1–M4	Place Value, Comparison, Addition and Subtraction to 40
	-Links to:	G2–M3	Place Value, Counting, and Comparison of Numbers to 1,200

Topic C begins with Lessons 15, 16, and 17, which review the skip-counting students have been doing during fluency practice throughout the year (**1.5B)**. Through the rest of Topic C, students learn about the four most predominant U.S. coins in circulation: the penny, the nickel, the dime, and the quarter. Throughout the topic, students are also encouraged to use what they know about skip counting by twos, fives, and tens to count collections of pennies, nickels, and dimes (**1.4C**).

In Lesson 18, students are introduced to the nickel, which they then use alongside the familiar dime and penny. Students consider various ways to represent common values and recognize and write those values using the cent symbol (**1.4B**). For instance, students represent a value of 10 by using 1 ten (the dime) or 10 ones (pennies), as well as the well-known decomposition of 5 + 5 (2 nickels). Students use their background with number bonds to decompose the larger value into the various compositions.

Lesson 19 introduces students to the quarter, which can be the most challenging coin to learn. Students build on their understanding from Lesson 18, focusing specifically on the value of 25. They consider how many pennies they would need to have the same value as 1 quarter and then trade in 2 dimes and 1 nickel or 2 dimes and 5 pennies for a quarter. Again, students use their prior work with number bonds and place value charts to consider the various compositions.

During Lesson 20, students continue to work with all four coins. Various sequences are provided to best match the learning needs of the class. In Lessons 21–22, students count on from any coin to create various values.

To culminate the topic, students determine the value of a collection of coins, connecting the prior knowledge students have developed throughout the module to their work in Topic C.

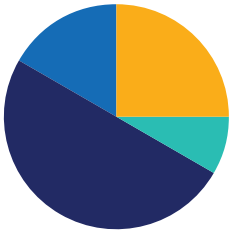
A Teaching Sequence Toward Proficiency in Coins and Their Values	
Objective 1:	**Skip-count by twos to determine the total number of objects up to 120 in a set. (Lesson 15)**
Objective 2:	**Skip-count by fives to determine the total number of objects up to 120 in a set. (Lesson 16)**
Objective 3:	**Skip-count by tens to determine the total number of objects up to 120 in a set. (Lesson 17)**
Objective 4:	**Identify pennies, nickels, and dimes by their image, name, or value. Decompose the values of nickels and dimes using pennies and nickels. Recognize and write the cent symbol (¢). (Lesson 18)**
Objective 5:	**Identify quarters by their image, name, or value. Decompose the value of a quarter using pennies, nickels, and dimes. (Lesson 19)**
Objective 6:	**Identify varied coins by their image, name, or value. Add one cent to the value of any coin. (Lesson 20)**
Objective 7:	**Count on using pennies from any single coin. (Lesson 21)**
Objective 8:	**Use dimes and pennies as representations of numbers to 120. (Lesson 22)**
Objective 9:	**Determine the value of a collection of coins. (Lesson 23–24)**

Lesson 15

Objective: Skip-count by twos to determine the total number of objects up to 120 in a set.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Standards Check: True or False Number Sentences **1.2G, 1.3D, 1.5E** (5 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose a Sprint based on the needs of the class.

- Addition Sprint 1
- Addition Sprint 2
- Subtraction Sprint
- Fluency Sprint: Totals of 5, 6, and 7
- Fluency Sprint: Totals of 8, 9, and 10

Standards Check: True or False Number Sentences (5 minutes)

Materials: (S) Personal white board

Write a true or false number sentence. Students write a happy face on their personal boards if the number sentence is true. If the sentence is false, students write it with the correct symbol. Notice which problem types are more challenging for them.

Use the first two columns (a–h) as the suggested sequence. At each checkpoint, decide whether students are ready for the next column or whether they should continue with similar problem types. The third column (i–l) is provided as a possible opportunity for a few students who would really enjoy a challenge.

a. 8 > 5
b. 80 > 50
c. 57 > 75
d. 19 < 91
e. 60 + 5 = 65
f. 93 = 9 + 30
g. 41 < 4 tens 1 ones
h. 84 > 8 ones 4 tens
i. 9 + 7 = 10 + 6
j. 18 + 10 = 28 – 10
k. 13 – 7 > 9
l. 100 < 99 + 1

Application Problem (5 minutes)

Materials: (S) Counting dots (Template 1)

Distribute one counting dots (Template 1) to pairs of students. Challenge partners to work together to determine how many dots are in each set. Then discuss which set was simpler to count and why.

Note: Over the next several lessons, students will learn to skip-count by 2s, 5s, and 10s. Today's Application Problem sets the stage for why it is important to learn to organize objects into groups and then skip-count by groups.

Concept Development (30 minutes)

Materials: (T) 120 chart (Template 2), set of 20 small objects (S) Personal white board, bag of 40–60 small objects per pair of students

Prepare a bag of 40–60 small objects for each pair of students. Ensure each bag has an even number of objects.

Part 1: Counting by Twos

Call students to the rug. Distribute a bag of objects and white board to each pair of students.

T: Today, we will count sets of objects. Remove the set of objects from your bag. With your partner, count to find the number of objects in your set. Record the number on your white board.

S: (Partners count sets of objects.)

T: What tips might you give a friend if they were counting a set of objects?

S: Put the objects in a straight line. → Move each object as you count it. → Count with a partner so you can help each other.

T: Great! There are many ways to organize and count objects. Some ways are more efficient than others. The word efficient means the quickest and simplest way. Today we will learn an efficient, way to count objects.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Support students, including some emergent bilingual students, with sharing their thinking with their peers by using sentence frames and starters, as needed. Consider providing the following sentence frames and starters:

- You should __ because .....
- I think ___ because...
- Consider ___ because .....

T: (Display the 120 chart (Template 2).) Before we learn a new way to organize objects, let's learn a new way to count. We are going to skip-count by twos. That means we don't say every number. Instead, we say every second number. As we count, I will circle the numbers we say on our chart. Let's go!

S (Skip-count by twos. Stop at the number 20.)

T: Let's pause at 20. Look at the numbers that are circled. Talk to your partner about what you notice.

S: We said every other number. → There's a pattern.

T: Now, we will keep skip-counting by twos, starting at 20. If you get stuck, use the patterns in our chart to know which numbers to say. I'll keep circling the numbers as we count.

S: (Students count to 120.)

T: (Display the circled 120 chart to remain visible throughout the lesson.) Today and every day, we can count by twos when counting a set of objects. First, we must group our objects by twos. (Place a scattered set of 20 objects on the floor. Model grouping them by twos.) Now that my objects are grouped by twos, help me skip-count by twos.

S: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20.

T: How many objects are in my set?

S: 20.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Part 2: Partner Counting

T: Partners, count the objects in your set once again. This time, group them by twos and skip-count by twos. Use our 120 chart for help as needed.

S: (Partners count their sets of objects by twos.)

T: Compare the number you got the first time you counted to the number you got when you skip-counted by twos. Are your numbers the same or different?

S: The same.

T: Yes! An efficient way to count objects is to arrange them into groups of two and then count by twos.

If time allows, have two sets of partners pair up to make a group of four students. Have each group combine their bags of objects and count by twos to find the total number in this new set.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

To assist students who need additional support with fluently skip-counting by twos, provide them with a 120 chart and have them place their two objects on every second number. Encourage students to use the 120 chart to help them skip count by saying the number their two objects are on.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Skip-count by twos to determine the total number of objects up to 120 in a set.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

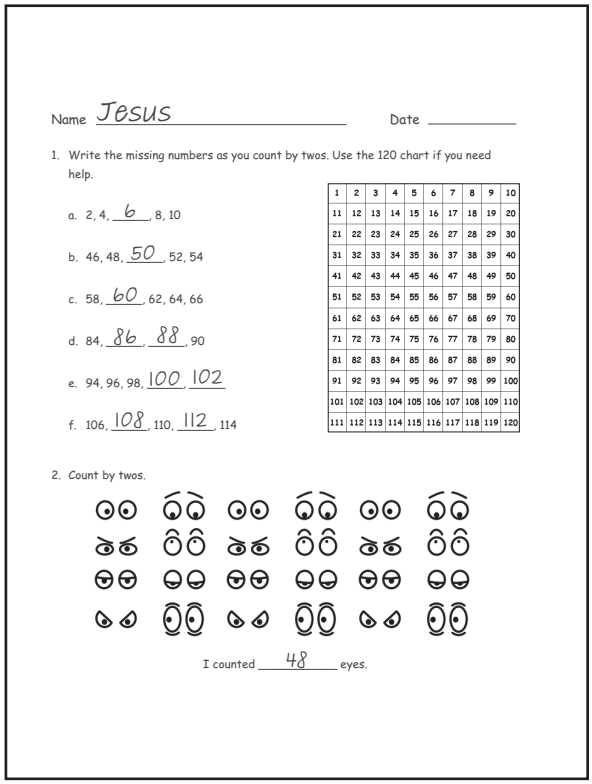
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How does our Application Problem relate to today's Problem Set?
- What tools and strategies can we use to make skip-counting more efficient?
- Compare your answer for Problem 3 to your partner's answer. Are they the same or different?
- Which was quicker to count: the eyes in Problem 2 or the animals in Problem 3? Why?
- In real life, when might we need to use skip-counting?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Jesus Date

1. Write the missing numbers as you count by twos. Use the 120 chart if you need help.

a. 2, 4, 6, 8, 10

b. 46, 48, 50, 52, 54

c. 58, 60, 62, 64, 66

d. 84, 86, 88, 90

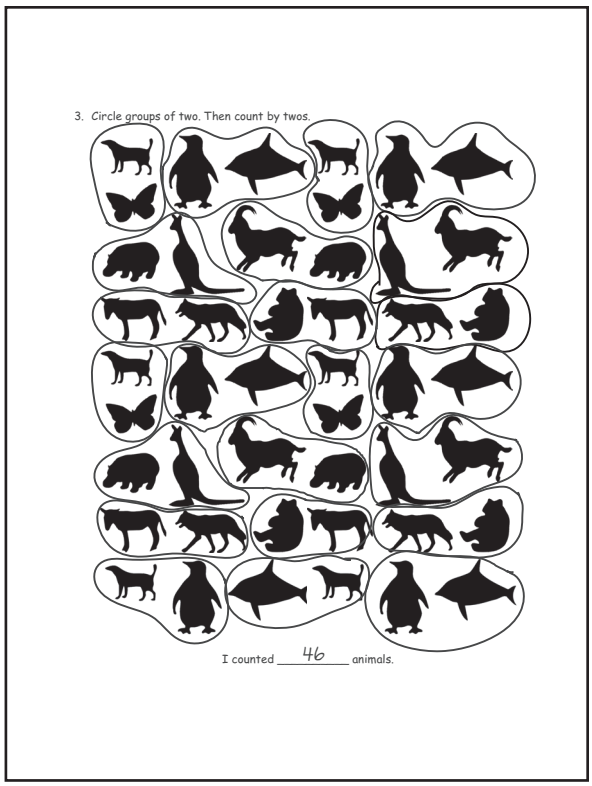
e. 94, 96, 98, 100, 102

f. 106, 108, 110, 112, 114

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by twos.

I counted 48 eyes.



3. Circle groups of two. Then count by twos.

I counted 46 animals.

Name _____ Date _____

1. Write the missing numbers as you count by twos. Use the 120 chart if you need help.

a. 2, 4, _____, 8, 10

b. 46, 48, _____, 52, 54

c. 58, _____, 62, 64, 66

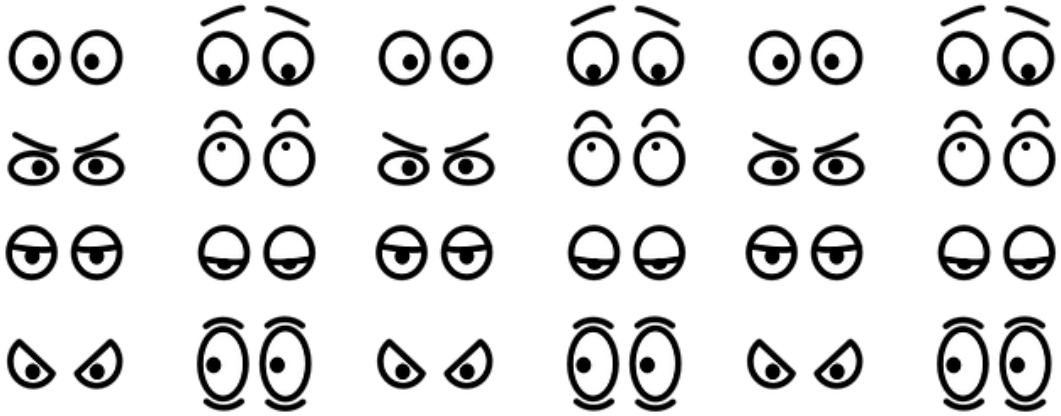
d. 84, _____, _____, 90

e. 94, 96, 98, _____, _____

f. 106, _____, 110, _____, 114

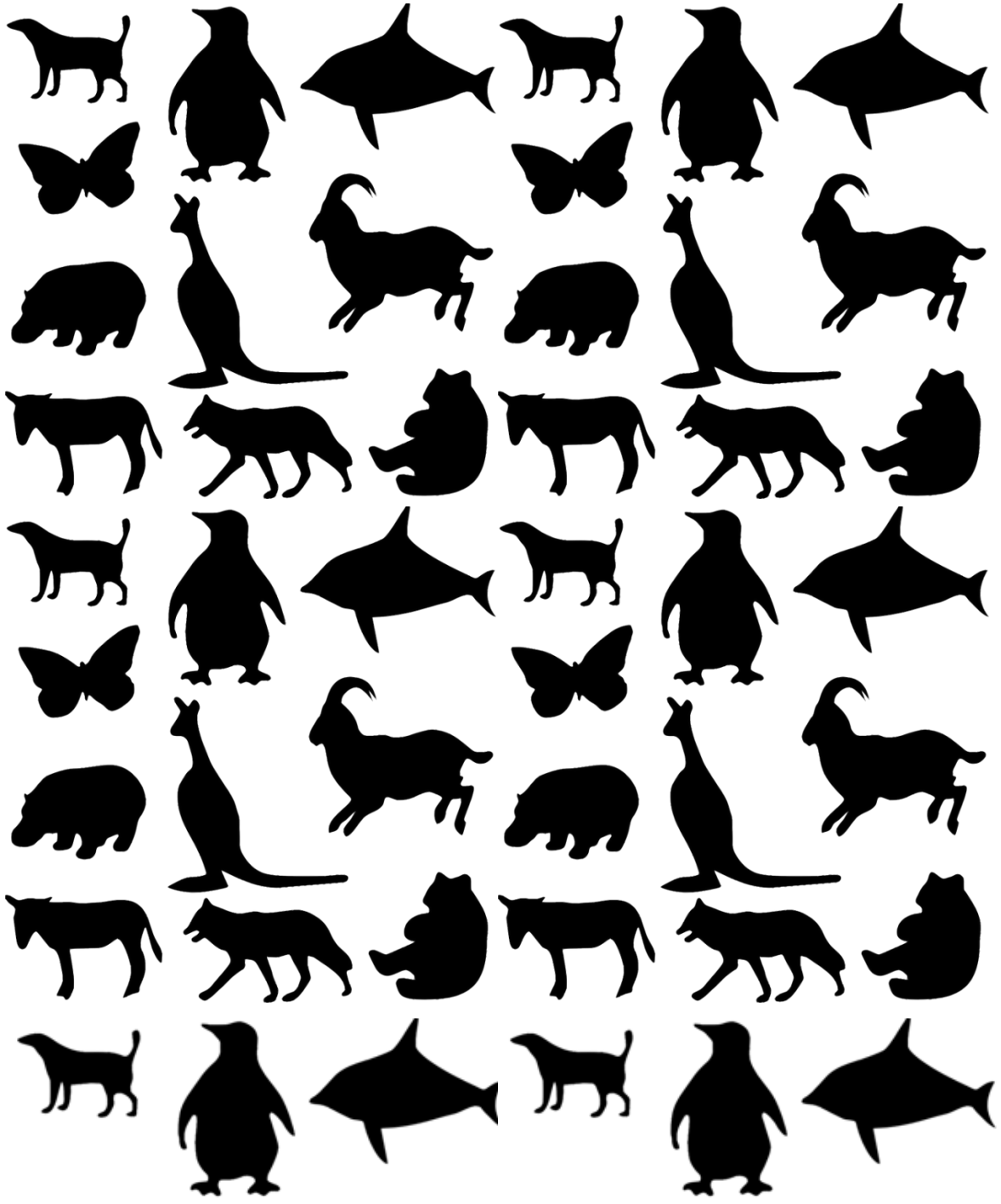
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by twos.



I counted _____ eyes.

3. Circle groups of two. Then count by twos.



I counted _____ animals.

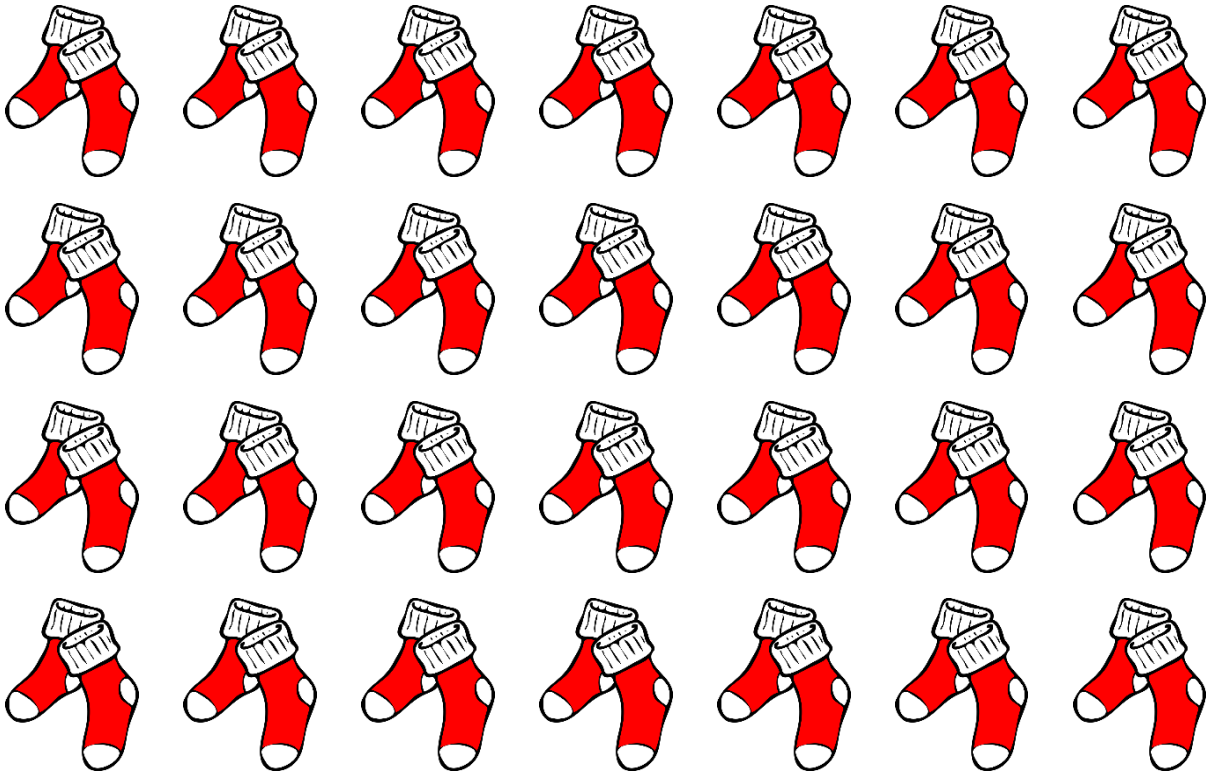
Name _____ Date _____

1. Write the missing numbers as you count by twos.

50, 52, _____, 56, _____, _____, 62, 64, _____

94, 96, _____, _____, 102, 104, _____, _____, 110

2. Count by twos.

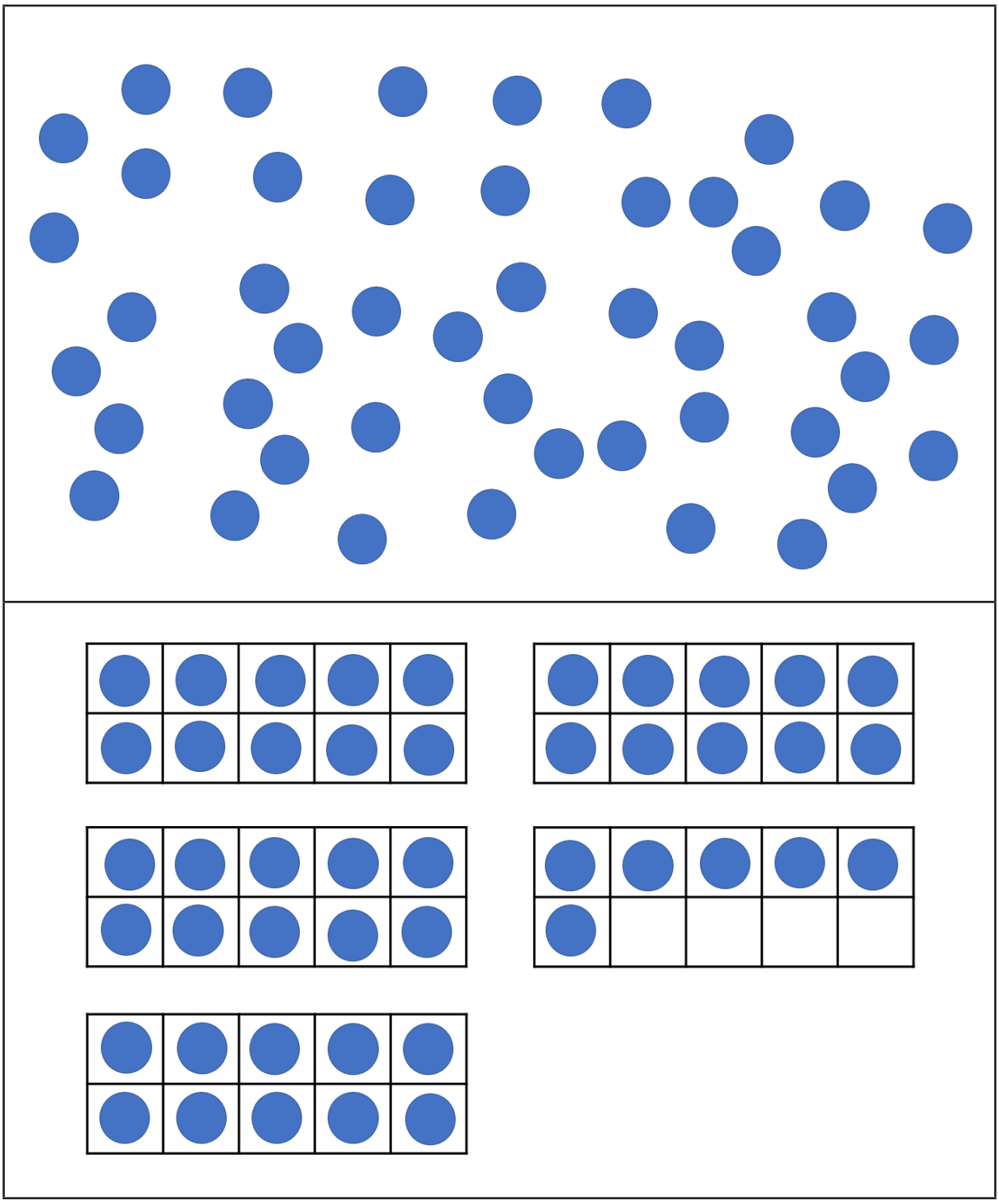


I counted _____ socks.

Name _____ Date _____

Count by twos with a grown-up. Write the missing numbers.

1	2	3	4	5	6	7	8	9	10
11		13	14	15	16	17		19	20
21	22	23		25	26	27	28	29	30
31		33	34	35		37	38	39	40
41	42	43	44	45	46	47	48	49	
51	52	53	54	55	56	57	58	59	60
61		63	64	65	66	67		69	70
71	72	73		75	76	77	78	79	
81	82	83	84	85	86	87		89	90
91		93	94	95	96	97	98	99	100
101		103		105	106	107		109	
111		113	114	115		117		119	



counting dots

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

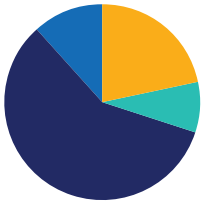
120 chart

Lesson 16

Objective: Skip-count by fives to determine the total number of objects up to 120 in a set.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(7 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: True or False Number Sentences **1.2G, 1.3D, 1.5E** (8 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Help students become aware of their improvement. After students do today's Practice Sets, ask them to stand if they tried a new level today or improved their score from the previous day. Consider having students clap for each person standing to celebrate improvement.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: True or False Number Sentences (8 minutes)

Materials: (S) Personal white board

Note: Use professional judgment to determine whether students would benefit more from repeating the previous standards check or moving on to this one. Today's standards check reviews the meaning of the equal sign and requires students to determine if addition and subtraction equations are true or false.

T: (Write 5 = 1 + 4.) What's 1 + 4?

S: 5.

T: (Write 5 = 5 directly underneath 5 = 1 + 4.) Is 5 = 1 + 4 true or false?

S: True.

T: Why?

S: Because 5 is equal to 5. → Because 5 is the same as 5.

T: Now, you do the same. Rename the side of the number sentence with a plus or minus symbol as one number.

T: (Write 7 = 3 + 5.)

S: (Write 7 = 8.)

T: Show me your boards. (Pause to see.) Is 7 = 3 + 5 true or false?

S: False.

T: Why?

S: Because 7 is not the same as 8. → Because 7 doesn't equal 8.

T/S: (Draw a line through the equal sign to show 7 ≠ 3 + 5 and 7 ≠ 8 to record they are not true.)

As time permits, continue with the following suggested sequence:

c. 7 = 2 + 5
d. 3 + 6 = 9
e. 8 = 2 + 7

f. 7 – 2 = 4
g. 3 = 8 – 5
h. 3 = 9 – 7

i. 6 + 1 = 5 + 2
j. 4 + 3 = 7 + 1
k. 8 – 4 = 6 – 2

l. 8 – 5 = 9 – 4
m. 8 – 6 = 2 + 4
n. 4 + 5 = 9 – 3

Application Problem (5 minutes)

Materials: (S) Counting wheels (Template 1), one per pair of students

Distribute counting wheels (Template 1) to pairs of students. Have partners work together to determine the number of wheels on the page. Challenge students to check their answers by counting a second time, this time skip-counting by twos.

Note: This Application Problem serves as review from yesterday's lesson. As students skip-count by twos, ensure they are counting sets of two wheels, not counting each individual wheel by twos.

Concept Development (35 minutes)

Materials: (T) 120 chart (Template 2) and set of 25 small objects (S) Personal white board, bag of 40–60 small objects per pair of students

Prepare a bag of 40, 45, 50, 55, or 60 small objects for each pair of students.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Part 1: Counting by Fives

Call students to the rug. Distribute a bag of objects and white board to each pair of students.

T: What are some ways we can count a set of objects?

S: We can count put them in a straight line. → We can move each object as we count. → We can put them in groups of two and skip-count by twos.

T: Yes. Yesterday, we learned an efficient way to count objects is to put them in groups of two and skip-count by twos. Today we will learn a new efficient way to organize and count objects.

T: (Display the 120 chart (Template 2).) Before we count sets of objects, let's practice skip-counting by fives. That means we don't say every number. Instead, we say every fifth number. As we count, I will circle the numbers we say on our chart. Let's go!

S (Skip-count by fives. Stop at the number 40.)

T: Let's pause at 40. Look at the numbers that are circled. Talk to your partner about what you notice.

S: We said all the numbers that end in 5 and 0. → There's a pattern. → The numbers we said go straight down the chart.

T: Now, we will keep skip-counting by fives, starting at 40. If you get stuck, use the patterns in our chart to know which numbers to say. I'll keep circling the numbers as we count.

S: (Students count to 120.)

T: (Display the circled 120 chart to remain visible throughout the lesson.) Today and every day, we can count by fives when counting a set of objects. First, we must group our objects by fives. (Place a scattered set of 25 objects on the floor. Model grouping them by fives.) Now that my objects are grouped by fives, help me skip-count by fives.

S: 5, 10, 15, 20, 25.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

All students, including emergent bilingual students, could benefit from exploring 5 as a group. Ask students to look around the room (as well as at themselves) to find things that come in fives, such as their fingers, tables, cubbies, etc. Invite students to turn and talk about how these repeated groups of 5 help with counting.

T: How many objects are in my set?

S: 25.

Part 2: Partner Counting

T: Partners, count the objects in your set once again. This time, group them by fives and skip-count by fives. Use our 120 chart for help as needed.

S: (Partners count their sets of objects by fives.)

T: Compare the number you got the first time you counted to the number you got when you skip-counted by fives. Are your numbers the same or different?

S: The same.

T: Yes! An efficient way to count objects is to arrange them into groups of fives and then count by fives.

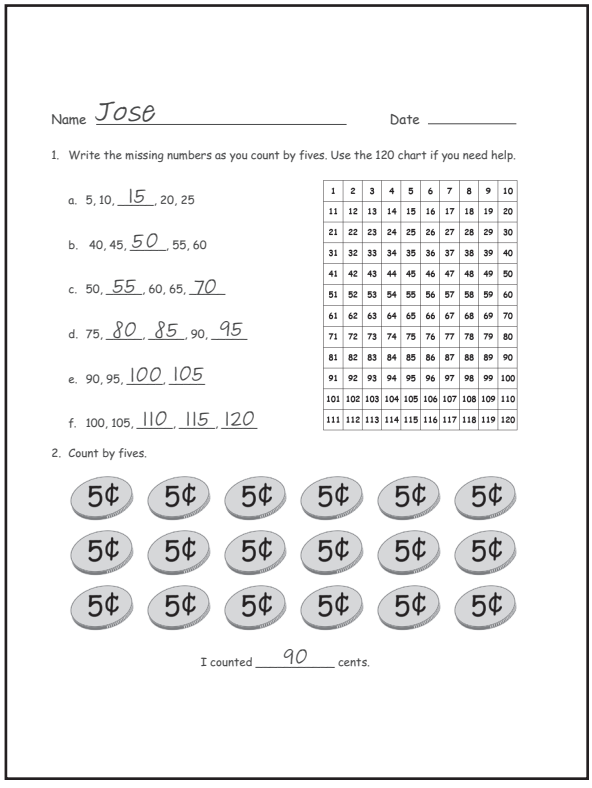
NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Encourage students who need additional support to organize their objects using 5-group formation. This will help them keep track of the count and ensure accuracy.

If time allows, have two sets of partners pair up to make a group of four students. Have each group combine their bags of objects and count by twos to find the total number in this new set.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.



Name Jose Date

1. Write the missing numbers as you count by fives. Use the 120 chart if you need help.

a. 5, 10, 15, 20, 25

b. 40, 45, 50, 55, 60

c. 50, 55, 60, 65, 70

d. 75, 80, 85, 90, 95

e. 90, 95, 100, 105

f. 100, 105, 110, 115, 120

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by fives.

I counted 90 cents.

Student Debrief (7 minutes)

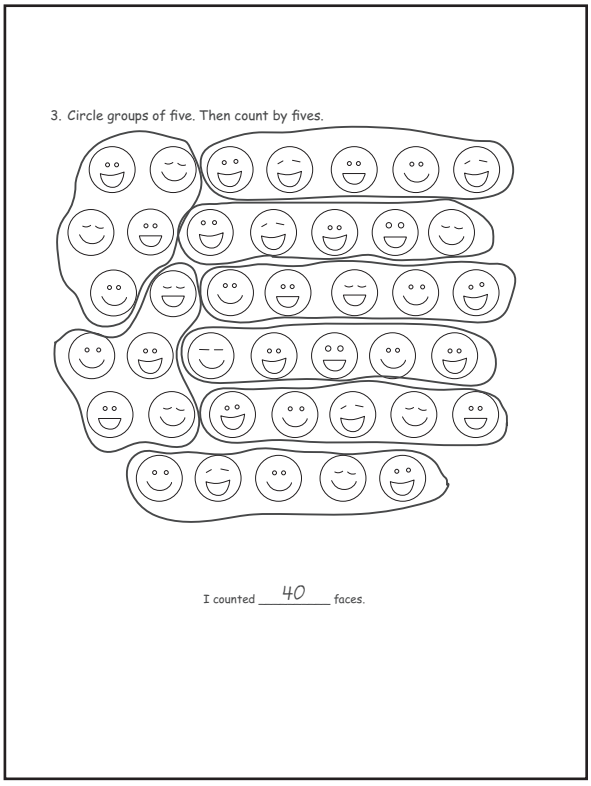
Lesson Objective: Skip-count by fives to determine the total number of objects up to 120 in a set.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner before going over answers as a class. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How does our Application Problem relate to today's Problem Set?
- What tools and strategies can we use to make skip-counting more efficient?
- Compare your answer for Problem 3 to your partner's answer. Are they the same or different?
- Which was quicker to count: the cents in Problem 2 or the faces in Problem 3? Why?
- Draw two more faces next to Problem 3. How could we find the total number of faces now? (Since there isn't a full group of 5, we'd need to count these last two faces by ones: 40, 41, 42.)
- In real life, when might we need to use skip-counting?



Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Write the missing numbers as you count by fives. Use the 120 chart if you need help.

a. 5, 10, _____, 20, 25

b. 40, 45, _____, 55, 60

c. 50, _____, 60, 65, _____

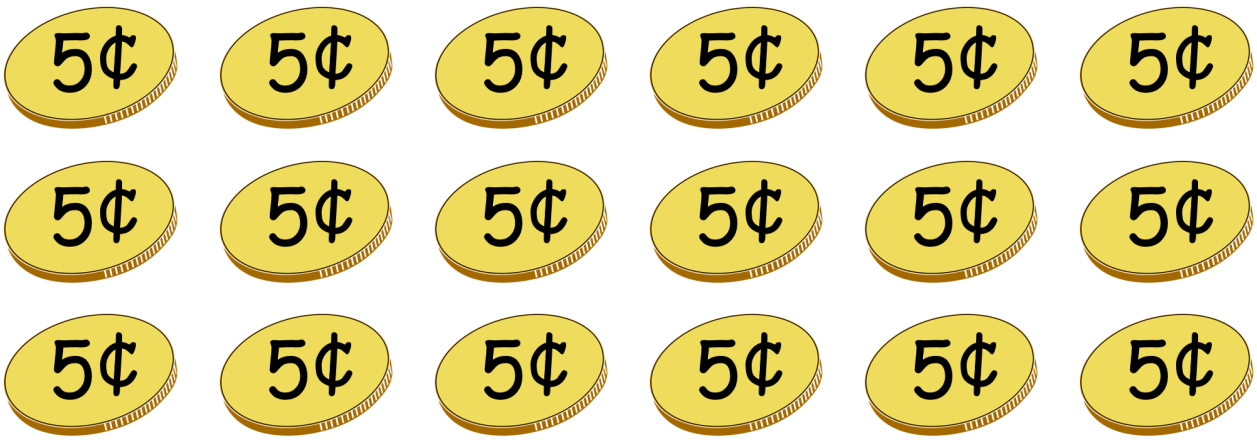
d. 75, _____, _____, 90, _____

e. 90, 95, _____, _____

f. 100, 105, _____, _____, _____

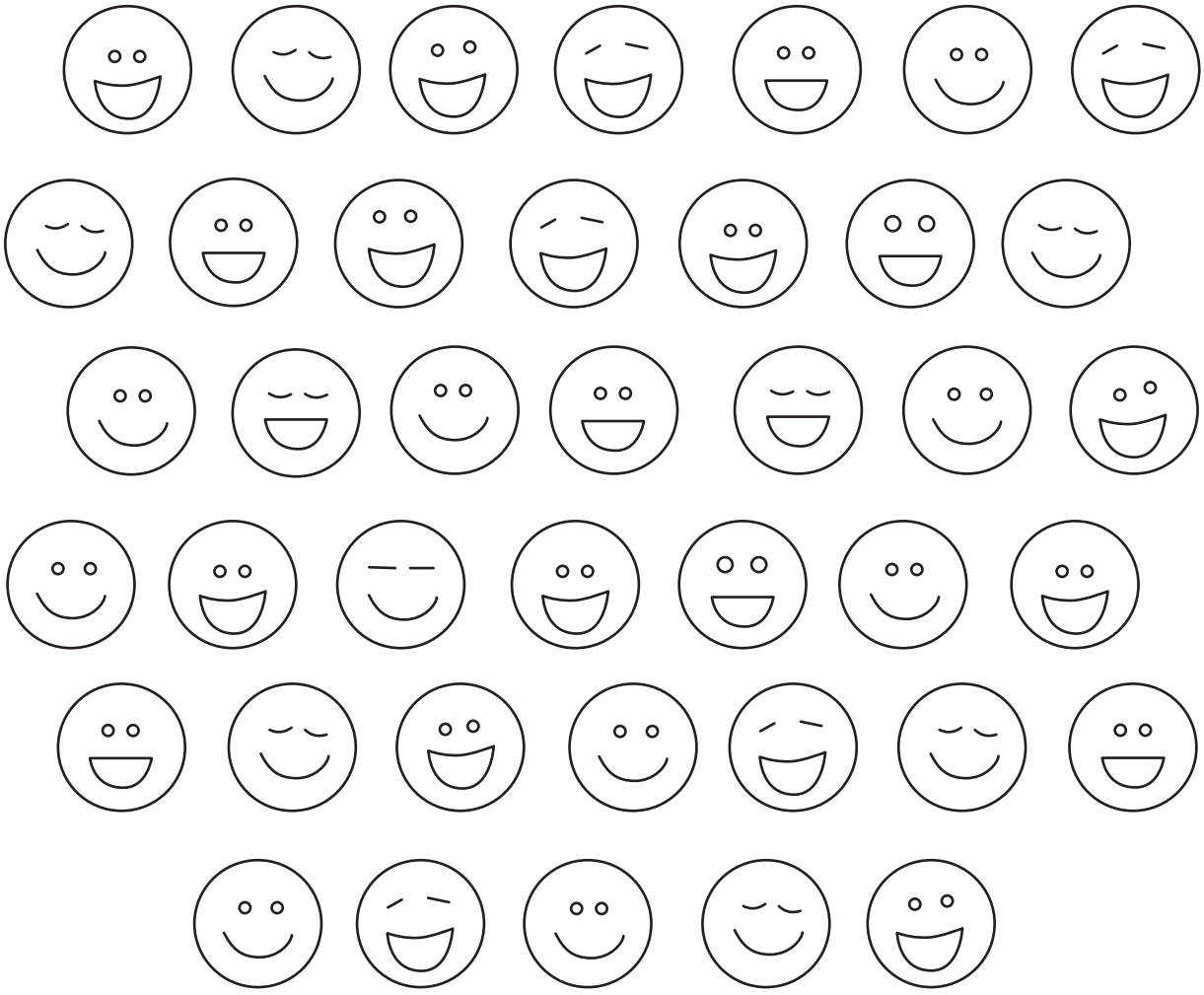
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by fives.



I counted _____ cents.

3. Circle groups of five. Then count by fives.



I counted _____ faces.

Name _____ Date _____

1. Write the missing numbers as you count by fives.

50, 55, _____, 65, _____, _____, 80, 85, _____

_____, 90, 95, _____, _____, 110, 115, _____

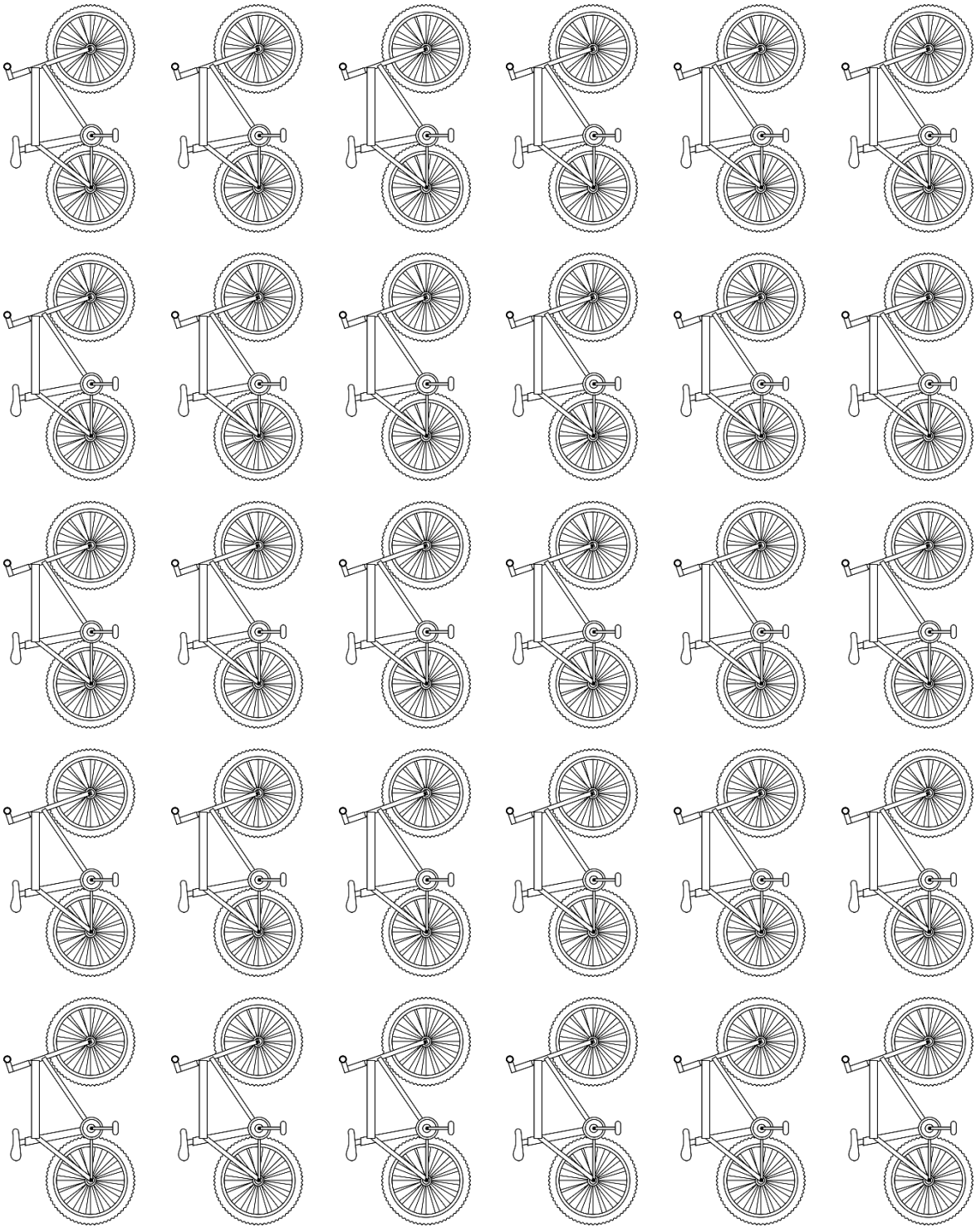
2. Count by fives.

I counted _____ toes.

Name _____ Date _____

Count by fives with a grown-up. Write the missing numbers.

1	2	3	4	5	6	7	8	9	10
11	12	13	14		16	17	18	19	20
21	22	23	24	25	26	27	28	29	
31	32	33	34		36	37	38	39	40
41	42	43	44	45	46	47	48	49	
51	52	53	54		56	57	58	59	60
61	42	63	64	65	66	67	68	69	
71	72	73	74		76	77	78	79	
81	82	83	84	85	86	87	88	89	90
91	92	93	94		96	97	98	99	100
101	102	103	104		106	107	108	109	
111	112	113	114		116	117	118	119	



counting wheels

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

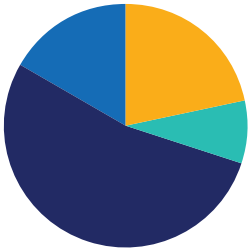
120 chart

Lesson 17

Objective: Skip-count by tens to determine the total number of objects up to 120 in a set.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Standards Check: Commutative Property **1.5E, 1.5G** (5 minutes)
- Standards Check: Subtraction as Unknown Addend **1.3D** (8 minutes)

Standards Check: Commutative Property (5 minutes)

Materials: (S) Pair of dice, personal white board

Note: In the remaining lessons, there are a variety of fluency activities that can be used to monitor students' proficiency of grade level standards. Take note of any students who may need additional support or particular standards-based activities that may be useful to include in summer practice.

This activity reviews the commutative property of addition (e.g., if 6 + 3 = 9 is known, then 3 + 6 = 9 is also known) (1.5G) and requires students to understand the meaning of the equal sign (1.5E).

- Assign partners.
- Both partners roll a die and then write four addition sentences using the rolled numbers as addends.
- Partners check each other's work.

Standards Check: Subtraction as Unknown Addend (8 minutes)

Materials: (S) Pattern sheet list A or B (Fluency Template)

Note: This activity provides review with converting subtraction expressions to unknown addend equations.

- Assign partners of equal ability, and give one partner List A and the other List B.
- Students convert the subtraction expressions on their lists to addition equations with unknown addends (e.g., for 10 – 9, the student would write 9 + ___ = 10).
- Partners exchange lists and solve.

Application Problem (5 minutes)

Materials: (S) Counting fingers (Template), one per pair of students

Distribute counting fingers (Template) to pairs of students. Have partners work together to determine the number of fingers on the page. Challenge students to check their answer by counting a second time, this time skip-counting by fives.

Note: This Application Problem serves as review from yesterday's lesson. As students skip-count by fives, ensure they are counting sets of fives, not counting each individual finger by fives.

Concept Development (32 minutes)

Materials: (T) 120 chart (Lesson 16 Template 2) and set of 30 small objects (S) Personal white board, bag of 100–120 connecting cubes, or other small objects, per pair of students

Prepare a bag of 100, 110, or 120 small objects for each pair of students.

Part 1: Counting by Tens

Call students to the rug. Distribute a bag of objects and white board to each pair of students. Strategically determine which partners receive the bags with more/less objects.

T: What are some ways we can count a set of objects?

S: We can move each object as we count. → We can put them in groups of two and skip-count by twos. → We can skip-count by fives.

T: Yes. There are many ways to organize and count a set of objects. What does it mean to find an efficient way to count a set?

S: Find a way that is quick.

T: Yes, grouping objects and skip-counting is an efficient way to count objects. We've already learned to skip-count by twos and fives. Today, we will learn to group and skip-count by tens.

T: (Display the 120 chart template.) Before we organize and count sets of objects, let's practice skip-counting by tens. That means we don't say every number. Instead, we say every tenth number. As we count, I will circle the numbers we say on our chart. Let's go!

S (Skip-count by tens. Stop at the number 40.)

T: Let's pause at 40. Look at the numbers that are circled. Talk to your partner about what you notice.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Support students, including emergent bilingual students, with understanding the term *efficient* by using a scenario. For example, spill a box of crayons and begin to pick them up. Then, invite a group of student volunteers to help. Emphasize that using teamwork is a more efficient way to pick up the crayons because it makes the task quicker and easier to complete. Encourage students to share other real-world examples of efficiency.

S: We only said numbers ending in 0. → There's a pattern.

T: Now, we will keep skip-counting by tens, starting at 40. If you get stuck, use the patterns in our chart to know which numbers to say. I'll keep circling the numbers as we count.

S: (Students count to 120.)

T: (Display the circled 120 chart to remain visible throughout the lesson.) Today and every day, we can count by tens when counting a set of objects. First, we must group our objects by tens.

Part 2: Partner Counting

T: Now that we have practiced skip-counting by tens, count the objects in your set once again. This time, group them by tens and skip-count by tens. Use our 120 chart for help as needed.

S: (Partners count their sets of objects by tens.)

T: Compare the number you got the first time you counted to the number you got when you skip-counted by tens. Are your numbers the same or different?

S: The same.

T: Yes! An efficient way to count objects is to arrange them into groups of tens and then count by tens.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Extension: Close by discussing things that come in sets of ten (crabs have ten legs, dimes have ten cents, a decade is ten years, most people have ten fingers and ten toes. Challenge the class to stand in a line and use skip-counting by tens to count the classes' fingers. This closing activity serves as an extension because it will likely go beyond skip-counting to 120.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Offer students a smaller version of the 120 chart or a vertical counting sequence to support skip counting by tens. Students can insert the chart into a personal whiteboard and mark the numbers as they skip count the groups of objects.

Student Debrief (10 minutes)

Lesson Objective: Skip-count by tens to determine the total number of objects in a set.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

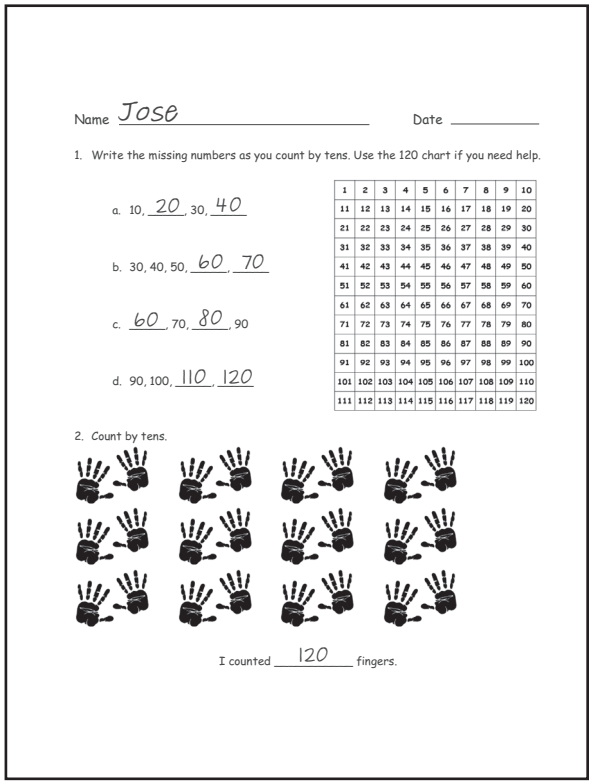
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How does our Application Problem relate to today's Problem Set?
- What tools and strategies can we use to make skip-counting more efficient?
- Compare your answer for Problem 3 to your partner's answer. Are they the same or different?
- How did you find the total number of birds? What happens when you get to 50? (You need to switch back to counting by ones.)
- Which was quicker to count: the fingers in Problem 2 or the birds in Problem 3? Why?
- In real life, when might we need to use skip-counting?

Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Jose Date

1. Write the missing numbers as you count by tens. Use the 120 chart if you need help.

a. 10, 20, 30, 40

b. 30, 40, 50, 60, 70

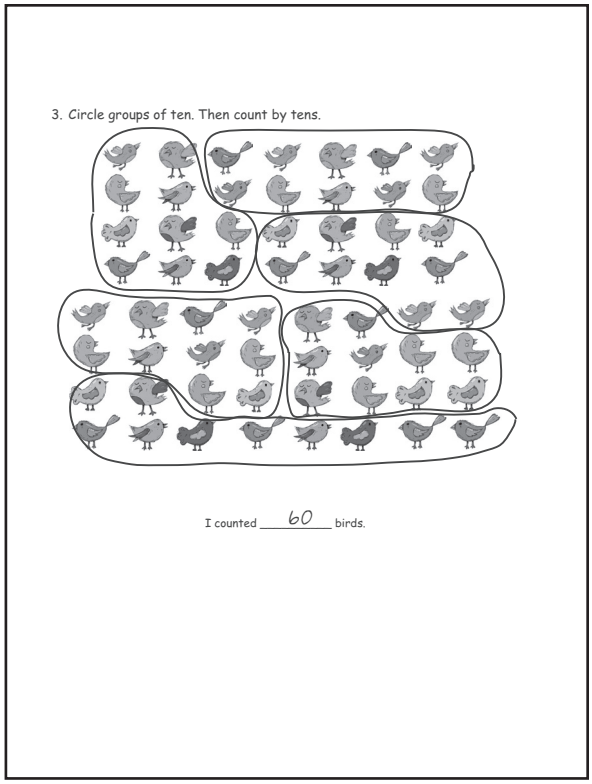
c. 60, 70, 80, 90

d. 90, 100, 110, 120

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by tens.

I counted 120 fingers.



3. Circle groups of ten. Then count by tens.

I counted 60 birds.

Name _____ Date _____

1. Write the missing numbers as you count by tens. Use the 120 chart if you need help.

a. 10, _____, 30, _____

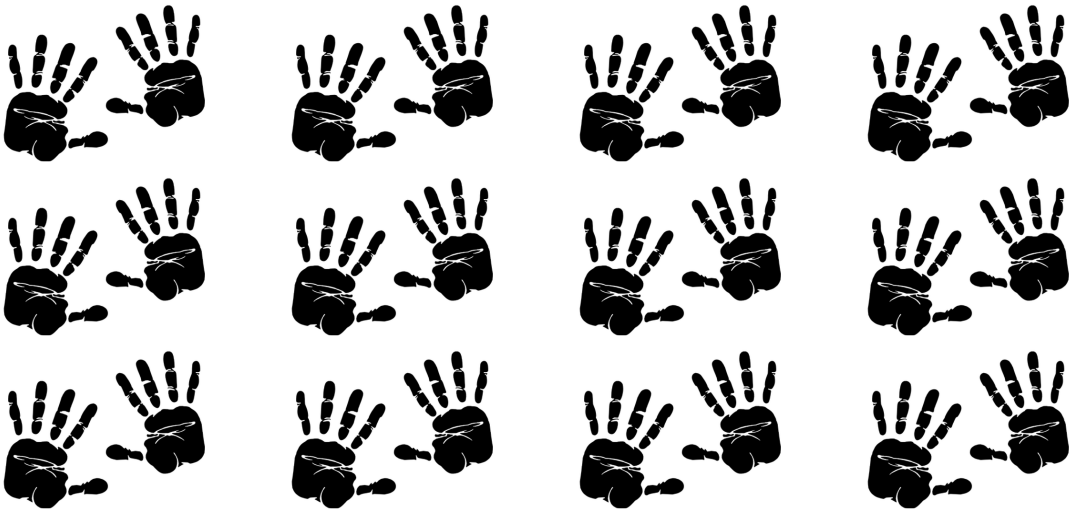
b. 30, 40, 50, _____, _____

c. _____, 70, _____, 90

d. 90, 100, _____, _____

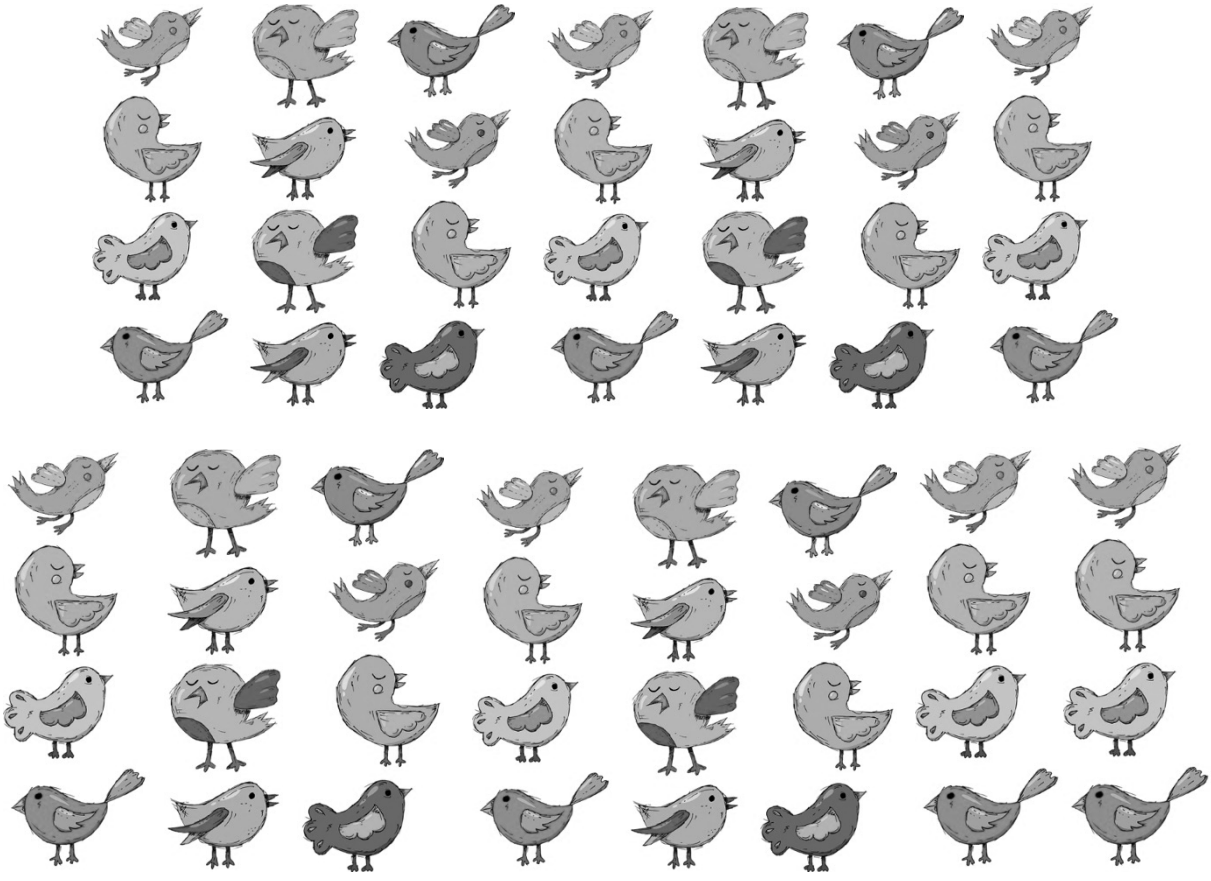
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

2. Count by tens.



I counted _____ fingers.

3. Circle groups of ten. Then count by tens.



I counted _____ birds.

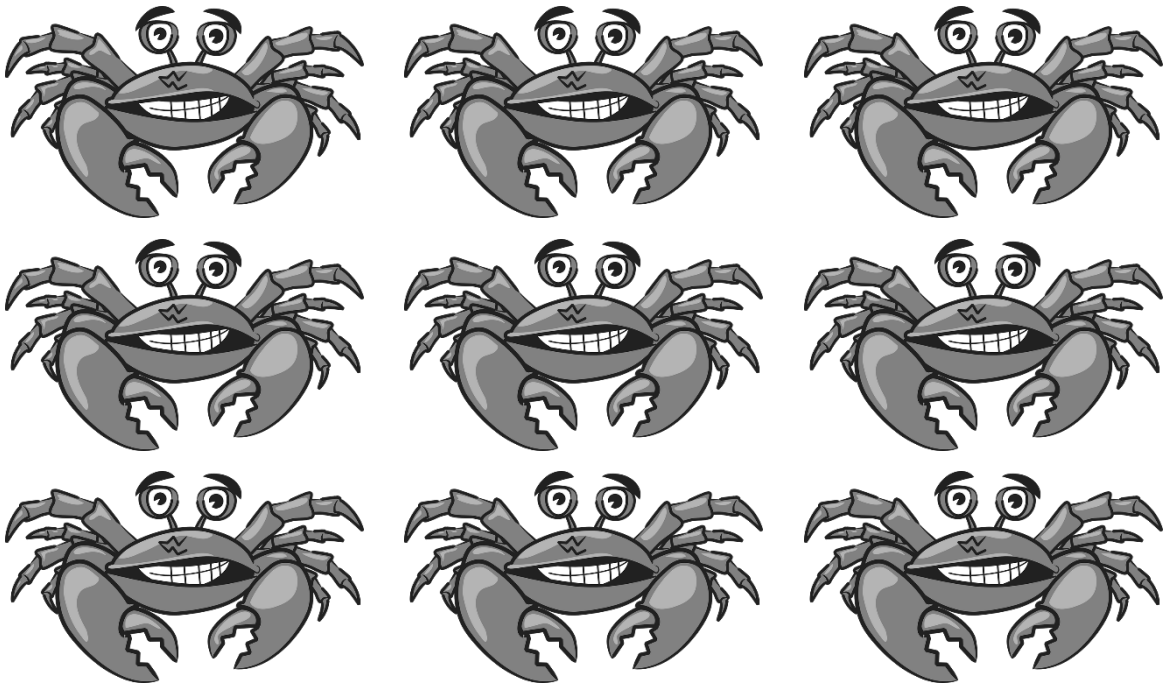
Name _____ Date _____

1. Write the missing numbers as you count by tens.

50, 60, _____, _____, 90, 100

_____, 30, 40, _____, _____, 70, _____

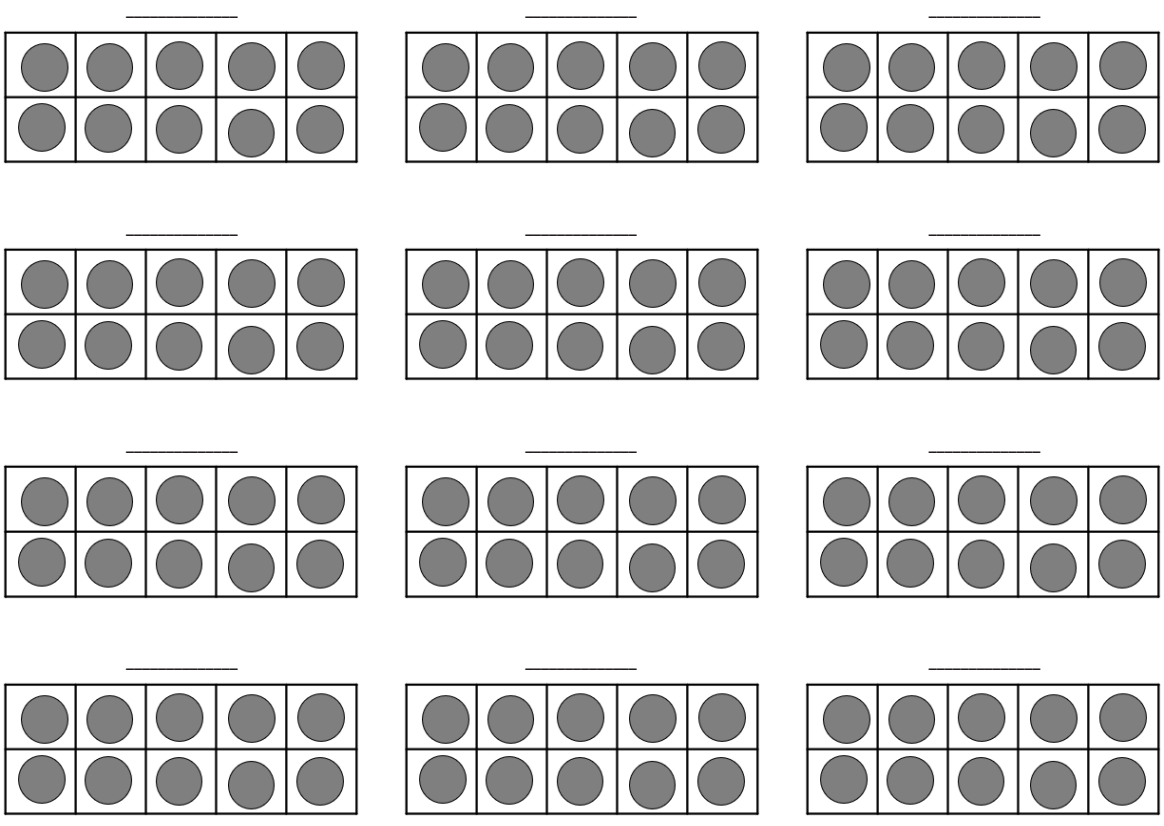
2. A crab has ten legs. Count the crab legs by tens.



I counted _____ crab legs.

Name _____ Date _____

Skip-count to find the total number of dots on the ten frames.



Write the missing numbers.

10, 20, _____, 40, 50, _____, _____, 80, 90, _____, _____

Name _____

Partner _____

Example

Step 1: Rewrite 4 – 1 as 1 + ____ = 4.

Step 2: Exchange papers and solve.

List A

1. 10 – 9 _____
2. 10 – 8 _____
3. 9 – 8 _____
4. 9 – 6 _____
5. 8 – 6 _____
6. 7 – 4 _____
7. 7 – 5 _____
8. 8 – 5 _____
9. 9 – 5 _____
10. 9 – 6 _____

pattern sheet list A or B

Name _____

Partner _____

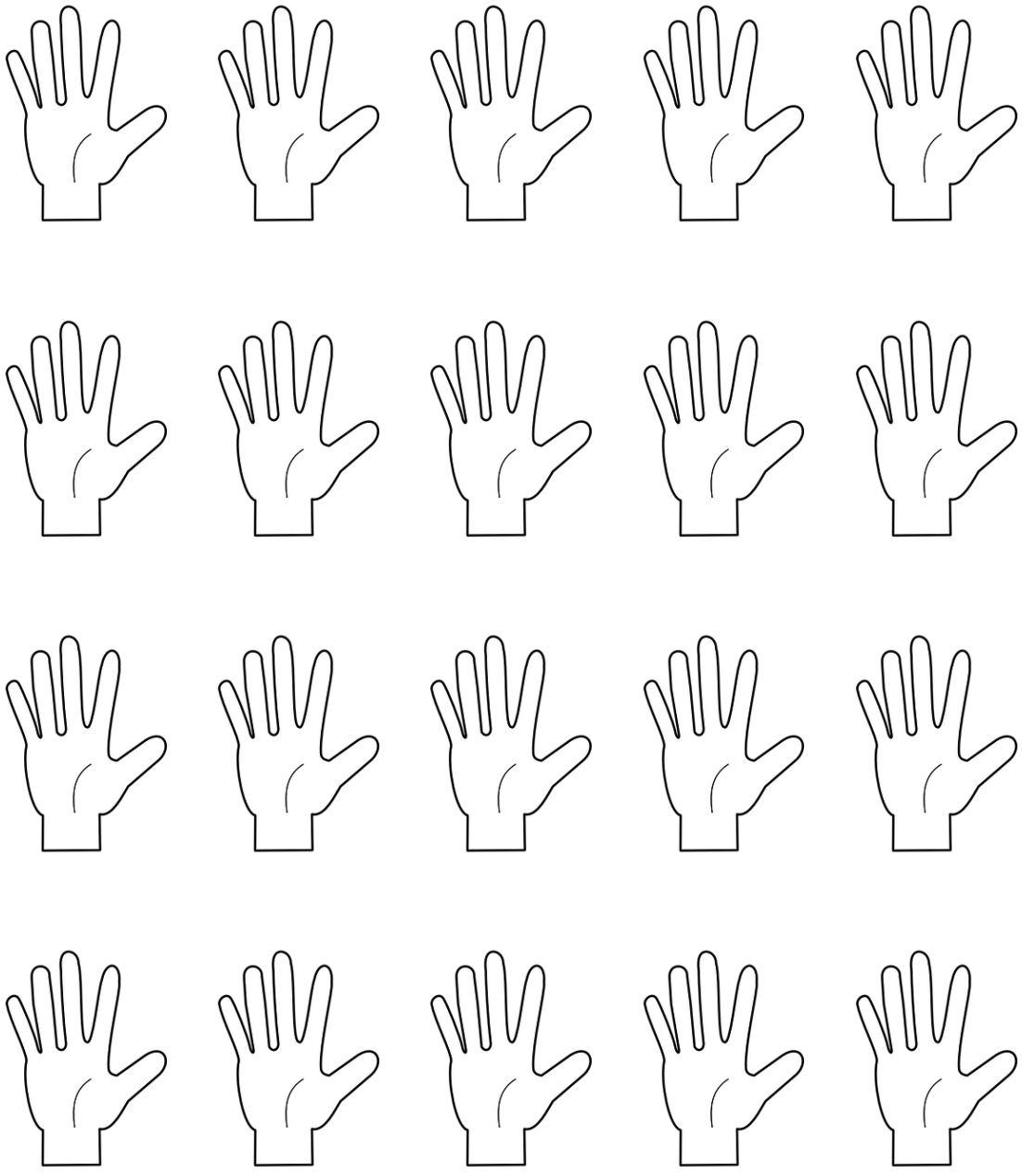
Example

Step 1: Rewrite 4 – 1 as 1 + ____ = 4.

Step 2: Exchange papers and solve.

List B

1. 10 - 8 _____
2. 10 – 7 _____
3. 8 – 7 _____
4. 8 – 6 _____
5. 9 – 6 _____
6. 7 – 6 _____
7. 7 – 5 _____
8. 7 – 4 _____
9. 8 – 5 _____
10. 6 – 4 _____



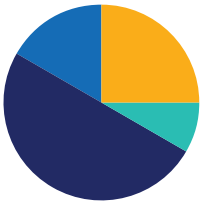
counting fingers

Lesson 18

Objective: Identify pennies, nickels, and dimes by their image, name, or value. Decompose the values of nickels and dimes using pennies and nickels. Recognize and write the cent symbol (¢).

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Standards Check: True or False Number Sentences **1.2G, 1.3D, 1.5E** (5 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose a Sprint based on the needs of the class.

- Addition Sprint 1
- Addition Sprint 2
- Subtraction Sprint
- Fluency Sprint: Totals of 5, 6, and 7
- Fluency Sprint: Totals of 8, 9, and 10

Standards Check: True or False Number Sentences (5 minutes)

Materials: (S) Personal white board

Write a true or false number sentence. Students write a happy face on their personal boards if the number sentence is true. If the sentence is false, students write it with the correct symbol. Notice which problem types are more challenging for them.

Use the first two columns (a–h) as the suggested sequence. At each checkpoint, decide whether students are ready for the next column or whether they should continue with similar problem types. The third column (i–l) is provided as a possible opportunity for a few students who would really enjoy a challenge.

a. $5 > 4$
b. $50 > 40$
c. $57 > 75$
d. $16 < 51$

Checkpoint.

e. $40 + 5 = 45$
f. $73 = 7 + 30$
g. $82 < 8$ tens 2 ones
h. $97 > 9$ ones 7 tens

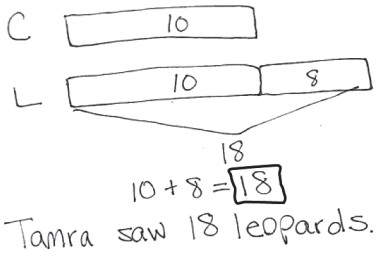
Checkpoint.

i. $9 + 7 = 10 + 6$
j. $16 + 10 = 26 - 10$
k. $12 - 6 > 9$
l. $90 < 89 + 1$

Application Problem (5 minutes)

Tamra saw 10 cheetahs at the zoo. She saw 8 more leopards than cheetahs. How many leopards did she see?

Note: Today's problem is a *compare with bigger unknown* problem type. Some students may incorrectly solve the problem because of their reliance on the term *more*, rather than on their understanding of the comparison. Look at students' drawings to see how they made meaning of the problem.



Concept Development (30 minutes)

Materials: (T) 8 dimes, 20 pennies, and 6 nickels (plastic or real) (S) 5 dimes, 15 pennies, 3 nickels (plastic or real), personal white board, spinner (Template) (optional), paper clip, pencil

Gather students in the meeting area with their materials.

T: (Lay out or project 1 dime.) What is the name of this coin?
S: A dime.
T: What is the value of one **dime**?
S: 10 cents!
T: (Show students the collection of 8 dimes.) I have some dimes in my hand. Let's find the value of all these dimes. We can count by tens to find their value. Count with me as I put each dime on the table. (Place one dime on the table at a time as students count.)
S: 10, 20, 30, 40, 50, 60, 70, 80.
T: What is the value of eight dimes?
S: 80 cents!
T: Take out your dime, and show it to me. (Wait as students take it out. On chart paper, record the dime using a circle with the number 10 in it.)
T: I want a number of **pennies** to equal the value of a dime. How many pennies do I need?
S: 10 pennies!
T: Why do I need 10 pennies to have 1 dime?
S: Pennies are worth 1 cent. You need 10 pennies to make 10 cents. → A dime is worth the same as 10 pennies.
T: So, 1 dime (point to the dime on the chart paper) is equal to 10 pennies. Count the pennies for me as I draw, and when we get to 10, don't say 10 pennies but…
S: 1 dime!
T: Count as I point.
S: 1 penny, 2 pennies, 3 pennies, …, 9 pennies, 1 dime.
S: 1 penny, 2 pennies, 3 pennies, …, 1 dime.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

To promote American patriotism, consider having students observe the front and back sides of the penny, nickel, and dime. Encourage students to look for the following inscriptions:

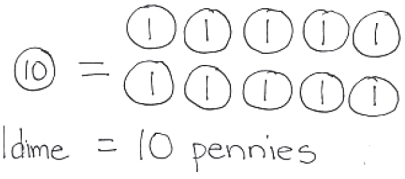
United States of America

liberty

e pluribus unum (from many one)

in God we trust

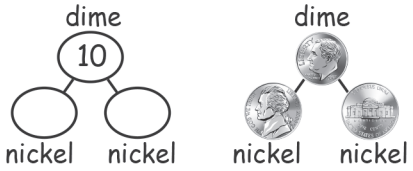
Hold a brief discussion to emphasize the values and freedoms of the country. Consider mentioning the presidents on the front of each coin: Abraham Lincoln (penny), Thomas Jefferson (nickel), and Franklin D. Roosevelt (dime).



T: I'll write that as a number sentence. (Write 1¢ + 1¢ + 1¢+ 1¢+ 1¢+ 1¢+ 1¢+ 1¢+ 1¢+ 1¢ = 10¢. Point to the cent symbol.) This is the cent symbol. We use this symbol to show that we are counting pennies. Read this number sentence with me.

S: (Choral.) 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent plus 1 cent equals 10 cents.

T: (Hold up or project a nickel.) Two of these together have the same value as a dime. (Create a number bond with the coins, as shown to the right. Record the number bond, leaving out the value of the nickels.)



T: What is the value of this coin? Turn and talk with a partner, and make a number bond to show your thinking. Tell your partner how you know. (Wait as students discuss.)

T: What is the value?

S: 5 cents! (After students show their boards, add the value 5 to the two number bond parts.)

T: How do you know?

S: The number bond needs the same number for both parts. So, it must be 2 fives to make 10. → It's like a doubles fact. 5 + 5 = 10, so they must be five cents each. → I have nickels at home. I know they are worth 5 cents.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Make sure both parts are the same number in students' number bonds. Since they are both the same kind of coin, the two parts must be the same value.

T: This coin is called a **nickel**. Find all the nickels in your bag. (Wait as students identify the nickels.)

T: Sort the rest of your coins into piles, so we can get what we need for today's lesson. Put each pile on your personal white board, and write the name and value of the coin under the pile. Be sure to use the cent symbol to show the value of each coin. (Wait as students sort dimes, pennies, and nickels.)

T: What is one of the ways we made 10 cents?

S: We made 10 cents with 10 pennies. → We made 10 cents with 1 dime. → We made 10 cents with 2 nickels. → We made 10 cents with a nickel (5 cents) and 5 pennies (1 cent each).

T: (Display 2 nickels.) Two nickels is 10 cents. How many cents will I have when I put down 1 more nickel? Explain how you know. (Wait as students determine the answer. Have them turn and talk as necessary.)

S: 15 cents! → I know it's 15 cents because I can count the nickels by fives. 5, 10, 15 cents. → I know that 5 and 5 and 5 make 15.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Guide students who need more support trading pennies for a nickel or a dime using questions such as, "How many pennies would we need to trade for a nickel? Do we have enough to do this?"

T: Let's keep counting these nickels by fives. (Point at the nickels already displayed and then continue counting as the remaining three nickels are displayed.)

S: 5, 10, 15, 20, 25, 30.

T: How much are six nickels worth?

S: 30 cents!

T: Now, work with a partner to make 15 cents in different ways. (Wait and listen as students lay out coins to make 15 cents.)

T: How did you make 15 cents?

S: We used 15 pennies. Pennies are worth 1 cent. 15 pennies is 15 cents. → We used 1 dime and 5 pennies. That's 1 ten and 5 ones. → We did like you did. We got 3 nickels. → We used 1 dime and 1 nickel to make 15, since it's 10 and 5. → We used 2 nickels and 5 pennies. The two nickels make 10, and then 5 more pennies makes 15. (As student share, record their combinations on the chart paper.) Record using a list of chosen coins, number bonds, and/or equations with the cent symbol. Encourage students to write the value of the collection using a numeral and the cent symbol on their whiteboards.

Use the following suggested sequence, asking students to work with a partner to create a coin combination that has the given value. Record the combinations for each value on chart paper.

- 6 cents
- 11 cents
- 16 cents
- 20 cents

After students have successfully shown ways to make the above totals, provide the following riddles.

T: (Project or write 2¢ + 3¢.) I want to use one coin to represent the total 2¢ + 3¢. What coin will I use? Tell a partner.

T: (Project or write 2 + 3.) I want to use 1 coin to represent the total of 2 + 3. Which coin would I use? Tell a partner.

T: Which coin could represent the total of 2 + 3?

S: A nickel!

T: How do you know?

S: 2 + 3 = 5. → A nickel has a value of 5 cents.

Repeat the process with the following examples:

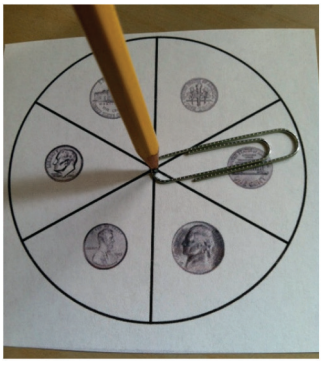
- 1 coin to represent the total of 6¢ + 4¢
- 1 coin to represent the total of 5¢ + 1¢ + 4¢
- 1 coin to represent the total of 1¢ + 0¢ or the value of 6¢ – 5¢
- 1 coin to represent the total of 4¢ + 1¢
- 2 coins to represent the total of 17¢ + 3¢
- 2 coins to represent the total of 2¢ + 8¢

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Many students, including some emergent bilingual students, will benefit from having a visual of the coins and their values posted for reference in the classroom.

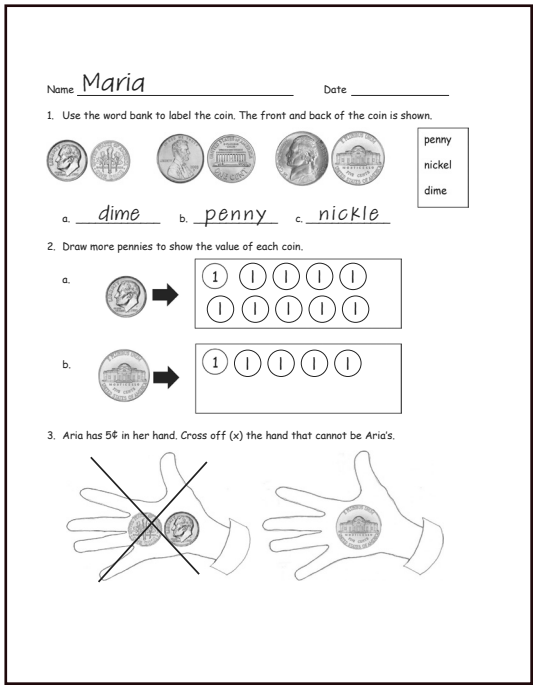
If time permits, partners may play Coin Trade. The object of the game is to continue to trade coins, always having 10 cents.

Materials: Each player has 10 pennies, the spinner with a paper clip and pencil; each pair has a pot with pennies, nickels, and dimes for trading per pair.



- Partner A spins the spinner.
- Partner A trades pennies for the coin landed on. (For instance, if the student lands on a nickel, he trades 5 pennies for 1 nickel. If he lands on a dime, he trades 10 pennies for 1 dime. If he lands on a penny, he trades a penny for a penny.) Player A counts his coins to be sure he still has 10 cents.
- Partner B takes a turn. Player B counts her coins to be sure she still has 10 cents.
- Play continues as time allows.
- The person with the most pennies at the end of the game is the winner.

As play continues, students might land on the coins they already have, such as landing on a penny when they have 10 pennies. Students may trade one of their pennies for a new penny. Play the game for about five minutes or as time allows.


Name Maria Date

1. Use the word bank to label the coin. The front and back of the coin is shown.

penny
nickel
dime

a. dime b. penny c. nickle

2. Draw more pennies to show the value of each coin.

a.

b.

3. Aria has 5¢ in her hand. Cross off (x) the hand that cannot be Aria's.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

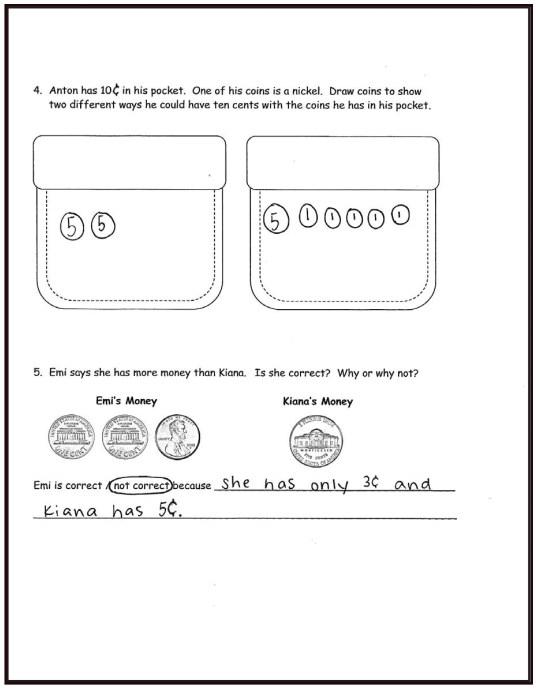
Lesson Objective: Identify pennies, nickels, and dimes by their image, name, or value. Decompose the values of nickels and dimes using pennies and nickels. Recognize and write the cent symbol (¢).

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. What parts of the picture of each coin help you identify it?
- Look at Problem 4. Share your solutions. Are there only two ways to make 10 cents with your coins? How many different ways can we make 10 cents using our coins?
- If you had to carry around 10 cents all day, which combination of coins would you want to carry? Why?
- Which coin was new to us today? (**Nickel.**) Describe the coin in as many ways as you can.


4. Anton has 10¢ in his pocket. One of his coins is a nickel. Draw coins to show two different ways he could have ten cents with the coins he has in his pocket.

5. Emi says she has more money than Kiana. Is she correct? Why or why not?

Emi's Money Kiana's Money

Emi is correct (not correct) because she has only 3¢ and Kiana has 5¢.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing the students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Use the word bank to label the coin. The front and back of the coin is shown.

penny
nickel
dime

a. _____ b. _____ c. _____

2. Draw more pennies to show the value of each coin.

a.

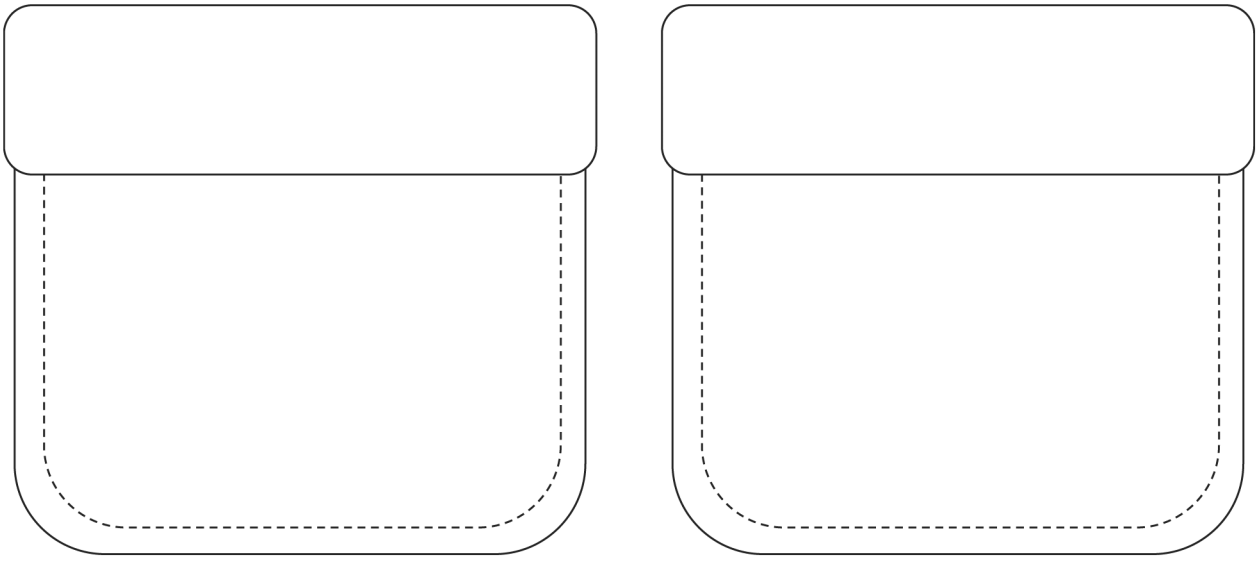
1

b.

1

3. Aria has 5¢ in her hand. Cross off (x) the hand that cannot be Aria's.

4. Anton has 10¢ in his pocket. One of his coins is a nickel. Draw coins to show two different ways he could have ten cents with the coins he has in his pocket.



5. Emi says she has more money than Kiana. Is she correct? Why or why not?

Emi's Money

Kiana's Money

Emi is correct/not correct because _____

_____

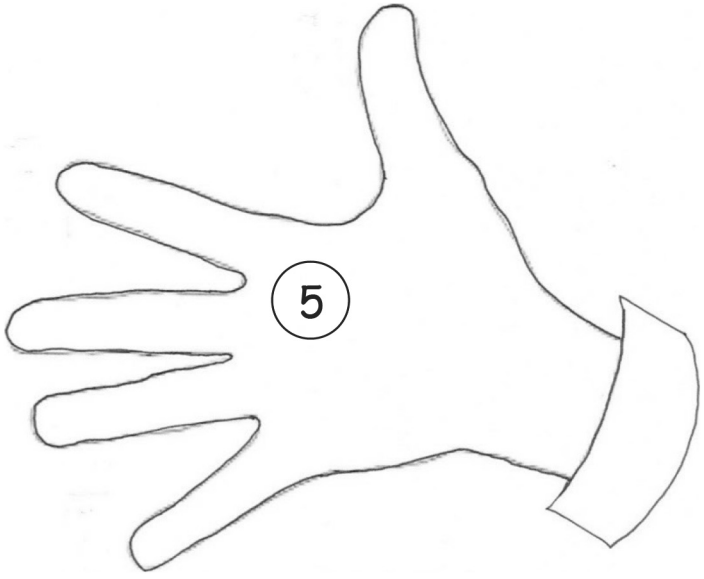
Name _____ Date _____

1. Match the pennies to the coin with the same value.

a.

b.

2. Ben has 10¢. He has 1 nickel. Draw more coin(s) to show what other coin(s) he might have.



Name _____ Date _____

1. Match.

penny

nickel

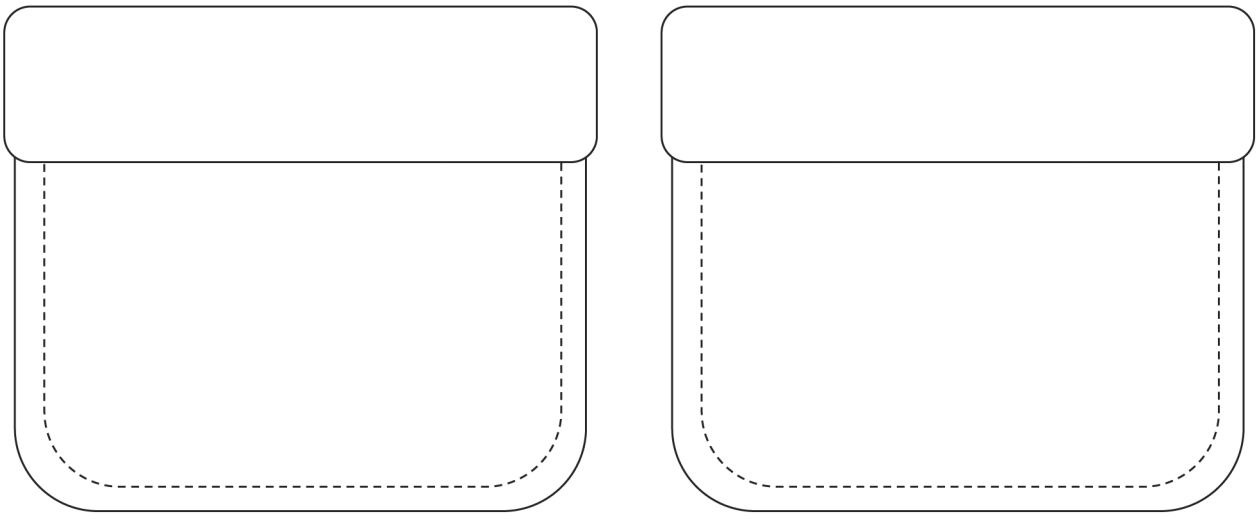
dime

2. Cross off some pennies so the remaining pennies show the value of the coin to their left.

a.

b.

3. Maria has 5¢ in her pocket. Draw coins to show two different ways she could have 5 cents.



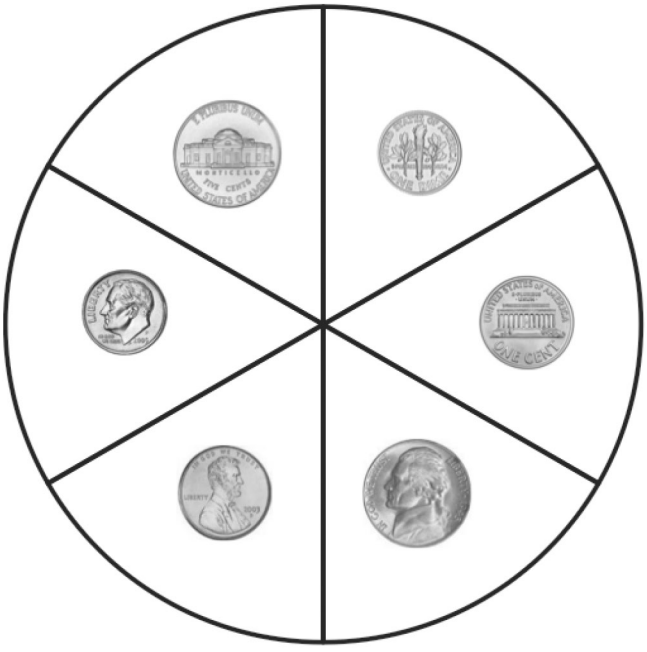
4. Solve. Draw a line to match the number sentence with the coin (or coins) that give the answer.

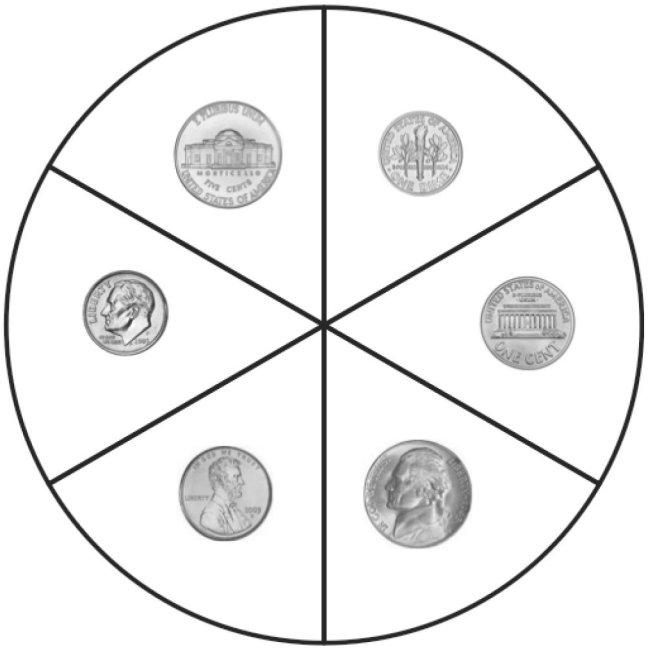
a. 10¢ + 10¢ = _____ ¢

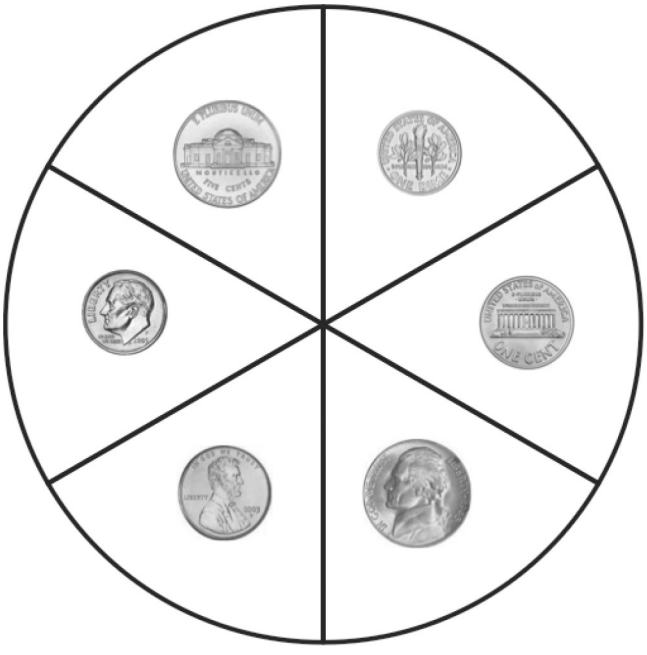
b. 10 cents - 5 cents = _____ cents

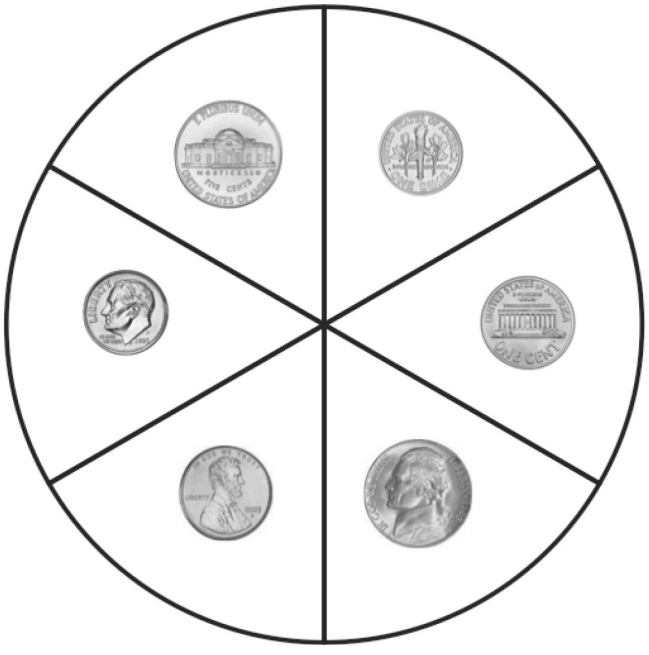
c. 20¢ – 10¢ = _____ ¢

d. 9 cents – 8 cents = _____ cents









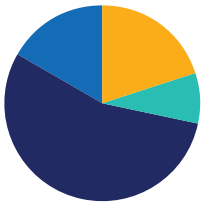
spinner: each group or set of partners needs 1 circle from this page. see image for use with pencil and paper clip.

Lesson 19

Objective: Identify quarters by their image, name, or value. Decompose the value of a quarter using pennies, nickels, and dimes.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (12 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Finger Counting Cents **1.4A, 1.4B, 1.5A** (2 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Based on the needs of the class, select a Sprint. There are several possible options available.

1. Re-administer the Sprint from the previous day's lesson.
2. Administer the next Sprint in the sequence.
3. Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Finger Counting Cents (2 minutes)

T: Let's use our fingers to count by ones. (Raise fingers in order, starting with the right pinkie.)
S: (Students start with their left pinkies.) 1 one, 2 ones, 3 ones, 4 ones, …, 10 ones.
T: Let's use our fingers to count by tens.
S: 1 ten, 2 tens, 3 tens, 4 tens, 5 tens.
T: Stop! 5 tens is the same as …
S: Fifty!
T: Continue.
S: 6 tens, 7 tens, 8 tens, 9 tens, 10 tens.
T: Stop! 10 tens is the same as …
S: 1 hundred!

T: We're going to us our fingers to count by cents. What coin has the value of 1 cent?
S: A penny!
T: In the air, make a cent symbol.
S: (Draw a cent symbol in the air.)
T: Let's count by pennies, or cents.
S: 1 cent, 2 cents, 3 cents, 4 cents, 5 cents.
T: Stop! 5 cents, or 5 pennies, has the same value as what one coin?
S: One nickel.
T: Continue.
S: 6 cents, 7 cents, 8 cents, 9 cents, 10 cents.
T: Stop! 10 cents or 10 pennies has the same value as what coin?
S: A dime.
T: Draw the cent symbol in the air again.
S: (Draw in the air.)

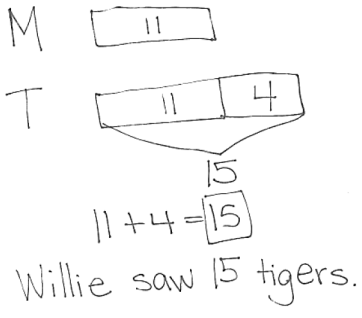
Continue the fluency by counting by cents, forwards and backwards, stopping to review that a nickel has a value of 5 cents, and a dime has a value of 10 cents.

Note: This fluency bridges counting by the units of ones and tens to counting using cents. Students also recall the cent symbol.

Application Problem (5 minutes)

Willie saw 11 monkeys at the zoo. He saw 4 fewer monkeys than tigers. How many tigers did he see at the zoo?

Note: Today's problem is a *compare with bigger unknown* where the problem suggests the wrong operation. Students are expected to have worked with these problems in Grade 1, but proficiency is not expected until the end of Grade 2. Consider scaffolding such as, "Set up your strip diagram to first show the same number of monkeys and tigers. Which animal did Willie see more of, monkeys or tigers? Add another section (the *more* strip) to the tigers. How many more tigers than monkeys did Willie see?"



Concept Development (33 minutes)

Materials: (T) 4 quarters, 10 dimes, 10 nickels, 30 pennies (plastic or real), chart paper (S) 1 quarter, 3 dimes, 3 nickels, 25 pennies (plastic or real), 1 die per set of partners, Problem Set

Note: Prepare the chart shown to the right prior to the lesson.

Gather students in the meeting area with their coins. Before beginning the lesson, show students the 30 pennies. Ask them to help count the value of the pennies by twos. Then count the 10 dimes by tens, and the 10 nickels by fives. Hold the Problem Set to the side.

Coin Combinations that Make 25 Cents	

T: Sort your coins into piles like we did yesterday so that we can find the coins we want more quickly. (Wait as students sort their coins.)
T: Put your finger on one dime. What is the value of one dime?
S: 10 cents!
T: Put your finger on one penny. What is the value of one penny?
S: 1 cent!
T: Put your finger on one nickel. What is the value of one nickel?
S: 5 cents!
T: What is the unit for each of these coins?
S: Cents!
T: You have 1 new coin. Pick up the new coin. Look at it closely, and describe what you notice about this coin.
S: It's bigger than the other coins. → It has bumpy edges, like the dime. The penny and the nickel have smooth edges. → There is an eagle on this one. → This one has a state's name on it!
T: This coin is called a **quarter**. Let's all say *quarter*.
S: Quarter!
T: Some quarters have different images on the back. Many have eagles on them, but others have different pictures and names of the states on them. (Show a few different images of quarters.) But no matter what, a quarter has a value of 25 cents.
T: Let's use our coins to make 25 cents in different ways and record them on our chart.
T: How many pennies make 25 cents?
S: 25 pennies!
T: Count out 25 pennies. Please arrange them in 5-groups. I'll give you about one minute.
T: To draw 1 penny, we make a circle and write the value of the coin on it. (Demonstrate.) What is the value of 1 penny?
S: 1 cent.
T: Here is your chart. (Distribute the Problem Set to students.)
T: Quickly draw one penny, and show me your work. (Check students' work.) Now you have about one minute to draw 25 pennies in the first row of the Problem Set. Use the 5-group way.
T: How many tens do you see?
S: 2.
T: How many ones do you see?
S: 25.
T: How many ones are not grouped in a ten?

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

To promote Texas state history, consider showing students the back side of the Texas state quarter. Encourage students to look for the following inscriptions:

TEXAS

1845 (year admitted to the Union)

2004 (year the coin was released)

E PLURIBUS UNUM

The Lonestar State

Students may also notice the lariat, i.e., rope, that encircles the outline of the Texas state design. Consider asking students why the rope is important to Texas state history.

S: 5.
T: Go down one row. What coins do we want to use to make 25 cents now?
S: Dimes and pennies!
T: Look at your 25 pennies without touching them. What is a way to trade to make 25 cents with dimes and pennies? Talk to your partner.
S: I can trade 10 pennies for 1 dime. → I can trade 20 pennies for 2 dimes. → I could put 2 dimes and 5 pennies. → I can put 1 dime and 15 pennies.
T: Go ahead and change pennies for dimes. Put the dimes where the pennies used to be. (Allow time for students to work.)
T: To draw 1 dime, we make a circle and write the value of the dime on it. What is the value of 1 dime?
S: 10 cents.
T: What will you draw on the circle to show a dime?
S: 10.
T: Record one way you used dimes and pennies to make 25 cents.
S: (Record.)
T: Which was simpler, drawing 25 pennies or the dimes and pennies?
S: The dimes and pennies!
T: If you are ready to do the rest of the problems on your own in the chart, you may return to your desk with your coins and Problem Set. I will continue working here on the carpet with those who want to work together.

Continue the process, emphasizing systematic trading and inviting alternate ways to use the coins indicated. Close by returning to the quarter.

T: How many quarters make 25 cents?
S: 1.
T: (Write 1 before *quarter,* draw a circle, and write 25 within it on the last row of the Problem Set.)
T: What is the one coin to use to show 25 cents?
S: A quarter!
T: Take a moment to review with your partner all the ways that you showed that have the same value as a quarter.

Optional Activity: Engage students in a game of 25 Cents. The object of the game is to be the first player to exchange their money for 1 quarter.

Materials: One die; 25 pennies, nickels, dimes, and quarters for trading; and a pot per pair of students

- Put all coins in a pot between the partners.
- Player A rolls the die and takes that number of pennies.
- Player B rolls the die and does the same.
- On each turn, players roll the die, add the additional pennies, and exchange their pennies for larger coins, if possible. For instance, if Player A has 6 pennies, she may trade 5 pennies for 1 nickel. If Player B has 1 nickel and 5 pennies, he may trade the coins for 1 dime.
- Play continues until a player can exchange his coins for 1 quarter, explaining that he has 25 cents.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

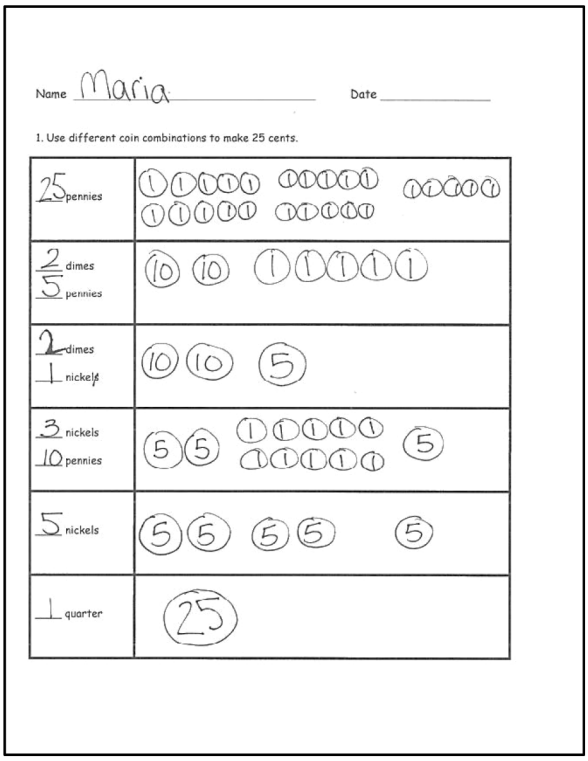
To immerse students in coins more fully, consider a classroom economy program for the duration of the year. Provide students with plastic or real coins for completing their classroom tasks. The money earned can be pooled toward a class goal or used individually in a class store.

NOTES ON MULTIPLE MEANS OF EXPRESSION:

For students who need visual reminders of the names and values of the coins, including some emergent bilingual students, hang chart paper with the name, value, and image of each coin.

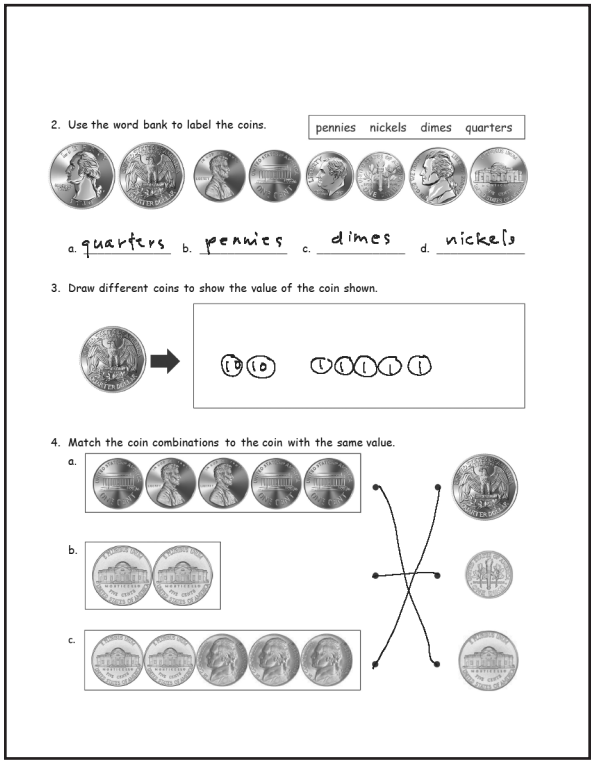
Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.


Name Maria Date

1. Use different coin combinations to make 25 cents.

25 pennies	
2 dimes, 5 pennies	
2 dimes, 1 nickel	
3 nickels, 10 pennies	
5 nickels	
1 quarter	


2. Use the word bank to label the coins. pennies nickels dimes quarters

a. quarters b. pennies c. dimes d. nickels

3. Draw different coins to show the value of the coin shown.

4. Match the coin combinations to the coin with the same value.

a.

b.

c.

Student Debrief (10 minutes)

Lesson Objective: Identify quarters by their image, name, or value. Decompose the value of a quarter using pennies, nickels, and dimes.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 4. How many more nickels did you need to make 25 cents than you needed to make 10 cents?
- What attributes of the coins help you recognize each?
- What is the name of the coin that has a value of 25 cents?
- Where do you see quarters? What coins could you use to buy a snack that costs 55 cents?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Use different coin combinations to make 25 cents.

a.	_____ pennies	
b.	_____ dimes _____ pennies	
c.	_____ dimes _____ nickels	
d.	_____ nickels _____ pennies	
e.	_____ nickels	
f.	_____ quarter	

2. Use the word bank to label the coins.

pennies	nickels	dimes	quarters

a. _____ b. _____ c. _____ d. _____

3. Draw different coins to show the value of the coin shown.

4. Match the coin combinations to the coin with the same value.

a.

b.

c.

Name _____ Date _____

Use the word bank to write the names of the coins.

dimes	nickels	pennies	quarters

a. _____ b. _____ c. _____ d. _____

Name _____ Date _____

1. Use the word bank to label the coins.

dimes	nickels	pennies	quarters

a. _____ b. _____ c. _____ d. _____

2. Write the value of each coin.
   a. The value of one dime is _____ cent(s).
   b. The value of one penny is _____ cent(s).
   c. The value of one nickel is _____ cent(s).
   d. The value of one quarter is _____ cent(s).

3. Your mom said she will give you 1 nickel or 1 quarter. Which would you take, and why?

_____

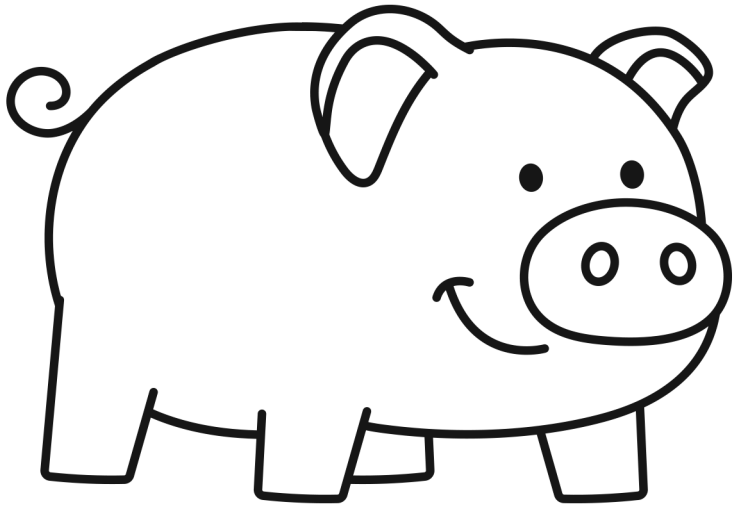
_____

_____

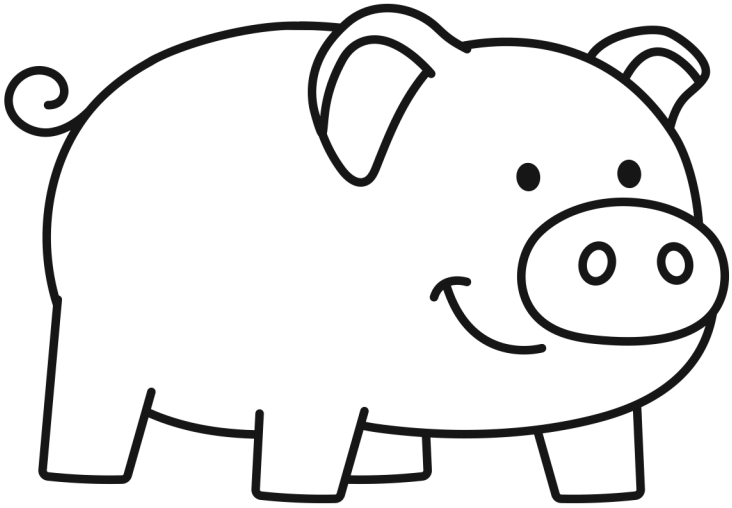
_____

4. Lee has 25¢ in his piggy bank. Which coin or coins could be in his bank?

   a. Draw to show the coins that could be in Lee's bank.



   b. Draw a different set of coins that could be in Lee's bank.

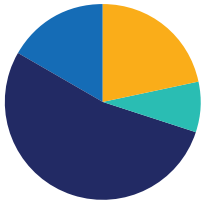


Lesson 20

Objective: Identify varied coins by their image, name, or value. Add one cent to the value of any coin.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: Addition Within 20 **1.3D, 1.3E** (8 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all questions correctly on their most recent Practice Set should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: Addition Within 20 (8 minutes)

Materials: (S) Personal white board

Note: This fluency activity shows which strategies students are using to add within 20. Students may show their work with a number bond, the arrow way, multi-step equations, or listing numbers to show how to count on.

Write the following list of strategies:

1. Count all.
2. Count on.
3. Make ten.

4. Use a doubles fact.
5. Use a helper problem (e.g., to solve 15 + 3, add 5 and 3 first).

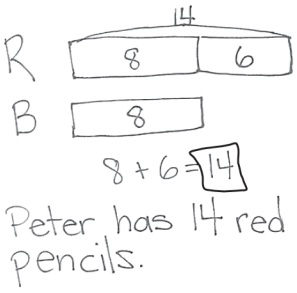
Say an addition expression. Students use their personal boards to solve. Choose students who used different strategies to share what they did, or instruct students to share their strategies with a partner.

Suggested sequence:

- 9 + 2, 3 + 9, 2 + 8 + 2
- 5 + 6, 7 + 6, 4 + 4 + 6
- 15 + 1, 3 + 16
- 13 + 4, 12 + 7

Application Problem (5 minutes)

Peter has 6 more red pencils than blue pencils. He has 8 blue pencils. How many red pencils does he have?



Note: Today's problem is a *compare with bigger unknown* problem type. Because yesterday's Application Problem suggested an incorrect operation, students may expect the same experience with today's problem. Encourage students to read through the entire problem, checking that their drawings and solutions make sense for all sentences in the story problem. Having students check their work helps them to become better problem solvers. Be sure to point this out.

Concept Development (32 minutes)

Materials: (T) 5–10 different quarters (e.g., various commemorative quarters), 5 dimes, 5 nickels (possibly with different images), 20 pennies, 1 dollar coin if available (real or plastic), projector
(S) 1 quarter, 2–5 dimes, 3–5 nickels, 10–20 pennies (real or plastic), 1 die, coin spinner with quarter (Template), paper clip, pencil per pair, personal white board

Gather students in the meeting area with their materials. Distribute 1 or 2 coins to each student as they come to the meeting area.

T: I had all of these coins at home. Tell your partner the name and value of the coin(s) you have. Explain how you know what coin it is. (Wait as students share. Consider having them pass their coin to the right until each student has had a chance to identify all the major coins.)

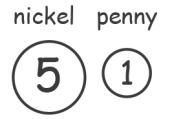
T: Let's sort them into piles of the same coin. (Call out each coin. Students holding that type of coin place their coins in a common pile in the middle of the group.)

T: Let's count the pennies that we have in our pile by twos. I'll move the coins and you count them.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

If a classroom economy has started, use students' coins to have them identify the image, name, and value of coins. Allow students to trade their pennies (or nickels) for different coins if they have enough to do so.

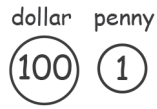
S: (Count.)
T: Now let's count our pile of nickels. What will we count by to find the value of all of our nickels?
S: We can count by fives.
T: Let's count all our nickels. I'll move the coins as you count.
S: (Count.)
T: If we want to count our pile of dimes, what should we count by?
S: Tens.
T: Let's count to find the value of the dimes.
S: (Count.)
T: (Point to the pennies.) What is the value of 1 penny?
S: 1 cent!
T: (Push forward 1 nickel.) What is the name of this coin?
S: It's a nickel.
T: What is its value?
S: 5 cents.
T: Use a complete sentence. A nickel's value is…?
S: A nickel's value is 5 cents.
T: (Push 1 penny next to the nickel.) If I have 1 nickel *and* 1 penny, how many cents do I have altogether?
S: 6 cents!
T: How do you know?
S: 5 + 1 = 6. → 5 cents plus one more cent is 6 cents.
T: (Draw 1 nickel and 1 penny on the chart paper, including their individual values and their total value, as shown to the right.)



5¢ + 1¢ = 6¢

Repeat the process, first with 1 dime and 1 penny, and then with 1 quarter and 1 penny. Finally, push forward the dollar coin.

T: (Push forward a 1 dollar coin.) Does anyone know the name of this coin?
S: It's a dollar coin! (If students do not know, introduce this as a dollar coin.)
T: A dollar coin is worth 100 cents!
T: (Push 1 penny next to the dollar coin.) If I have a 1 dollar coin whose value is 100 cents and 1 penny, how many cents do I have altogether?
S: 101 cents!
T: (Add the dollar coin and penny to the chart paper, including their individual values and their total value.)



100¢ + 1¢ = 101¢

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Engage students in a hunt for quarters, pennies, and nickels with various images. Invite students, including emergent bilingual students, to look for coins from other countries. When students bring in their findings, have them sort and name each coin and its value. Encourage students to share interesting observations. Students can research the values of foreign coins.

Based on students' ability to identify the name, value, and image of each coin, choose one of the games played during the past two days. To practice coin values of the dime, nickel, and penny, play Coin Trade. To practice adding on coins as well as trading coins, play 25 Cents.

Coin Trade

If students are ready, include the quarter, and use the new spinner at the end of this lesson.

The object of the game is to continue to trade coins, always having 10 cents.

Materials: Each player has 10 pennies (25 pennies, if using the new spinner) and the spinner with a paper clip and pencil; each pair has a pot with pennies, nickels, and dimes (and quarters if using the new spinner) for trading per pair.

- Partner A spins the spinner.
- Partner A trades pennies for the coin landed on. (For instance, if the student lands on a nickel, he trades 5 pennies for 1 nickel. If he lands on a dime, he trades 10 pennies for 1 dime. If he lands on a penny, he trades a penny for a penny.) Player A counts his coins to be sure he still has 10 cents.
- Partner B takes a turn. Player B counts her coins to be sure she still has 10 cents.
- Play continues as time allows.
- The person with the most pennies at the end of the game is the winner.

As play continues, students might land on the coins they already have, such as landing on a penny when they have 10 pennies. Students may trade one of their pennies for a new penny. Play the game for about five minutes or as time allows.

25 Cents

The object of the game is to be the first player to exchange their money for 1 quarter. For students who are ready for greater challenges, you can choose to make the goal 50 cents or 100 cents.

Materials: One die; 25 pennies, 5 nickels, 3 dimes and 2 quarters for trading; and a pot per pair of students

- Put all coins in a pot in the middle.
- Player A rolls the die and takes that number of pennies.
- Player B rolls the die and does the same.
- On each turn, players roll the die, add the additional pennies, and exchange their pennies for larger coins, if possible. For instance, if Player A has 6 pennies, he may trade 5 pennies for 1 nickel. If Player B has 1 nickel and 5 pennies, she may trade the coins for 1 dime.
- Play continues until a player can exchange his coins for 1 quarter, explaining that he has 25 cents.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Identify varied coins by their image, name, or value. Add one cent to the value of any coin.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

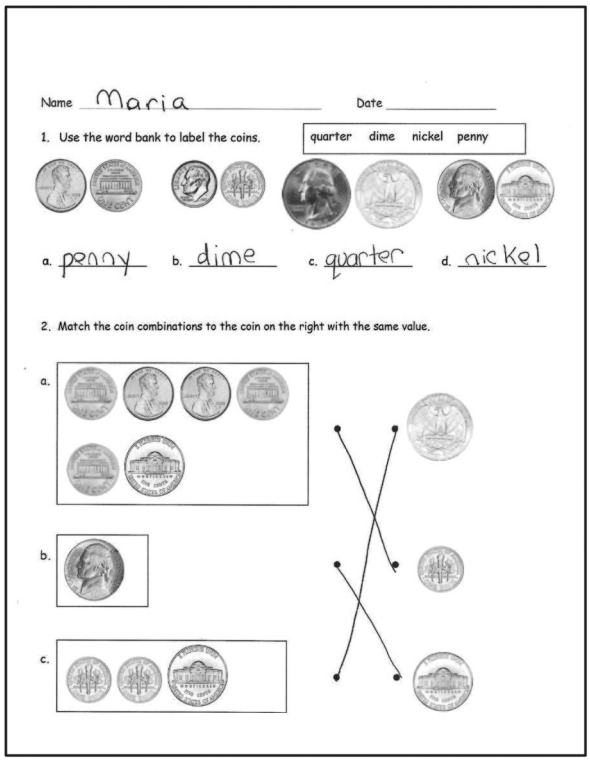
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 2. What other combinations of coins could you use to have the same value as a quarter? As a dime? As a nickel?
- Look at Problem 3. What are some ways to tell a nickel from a quarter?
- Create other problems like those in Problem 5. Who can identify the coin with the same value?
- What new coin did we see today? (**Dollar coin.** If applicable) Have you seen the dollar coin before? Where have you seen or used it?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Maria Date

1. Use the word bank to label the coins. quarter dime nickel penny

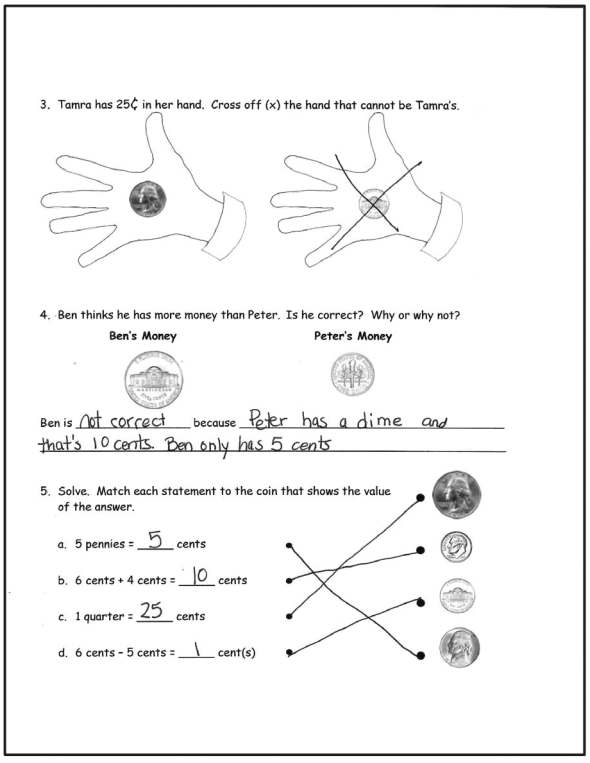
a. penny b. dime c. quarter d. nickel

2. Match the coin combinations to the coin on the right with the same value.

a.

b.

c.



3. Tamra has 25¢ in her hand. Cross off (x) the hand that cannot be Tamra's.

4. Ben thinks he has more money than Peter. Is he correct? Why or why not?

Ben's Money Peter's Money

Ben is not correct because Peter has a dime and that's 10 cents. Ben only has 5 cents

5. Solve. Match each statement to the coin that shows the value of the answer.

a. 5 pennies = 5 cents

b. 6 cents + 4 cents = 10 cents

c. 1 quarter = 25 cents

d. 6 cents − 5 cents = 1 cent(s)

Name _____ Date _____

1. Use the word bank to label the coins.

quarter	dime	nickel	penny

a. _____ b. _____ c. _____ d. _____

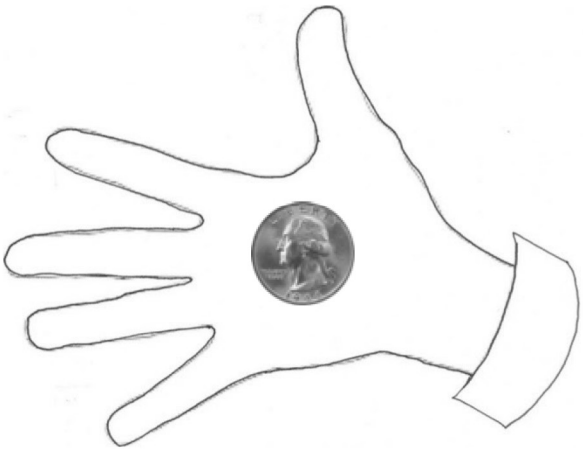
2. Match the coin combinations to the coin on the right with the same value.

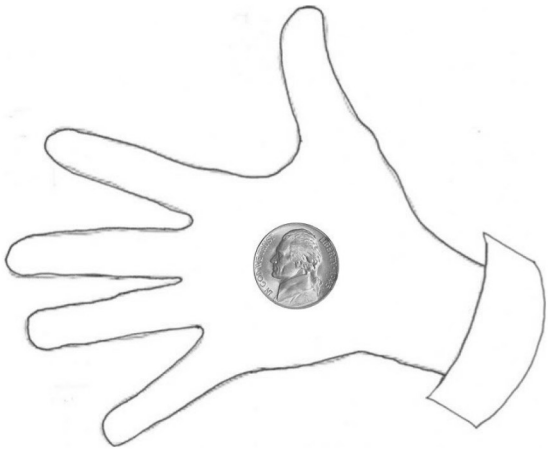
a.

b.

c.

3. Tamra has 25¢ in her hand. Cross off (x) the hand that cannot be Tamra's.





4. Ben thinks he has more money than Peter. Is he correct? Why or why not?

Ben's Money

Peter's Money

Ben is _____ because _____

_____

5. Solve. Match each statement to the coin that shows the value of the answer.

a. 5 pennies = _____ cents

b. 6 cents + 4 cents = _____ cents

c. 1 quarter = _____ cents

d. 6 cents – 5 cents = _____ cent(s)

Name _____ Date _____

Draw a line to match each coin to its correct name.

dime

nickel

penny

quarter

Name _____ Date _____

1. Match the label to the correct coins, and write the value. There will be more than one match for each coin name.

a. **nickel**

_____ cents

b. **dime**

_____ cents

c. **quarter**

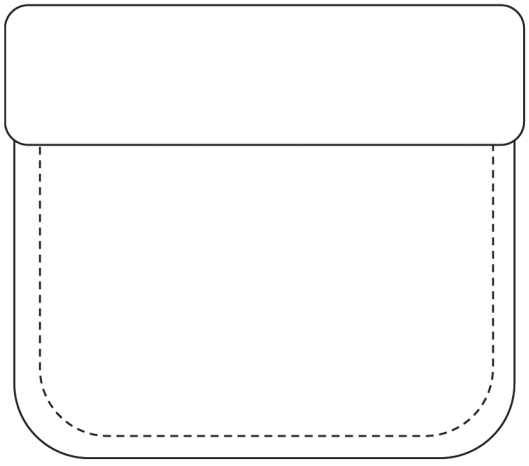
_____ cents

d. **penny**

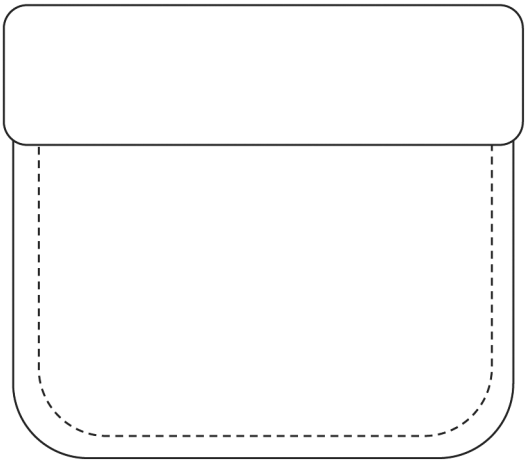
_____ cent

2. Lee has one coin in his pocket, and Pedro has 3 coins. Pedro has more money than Lee. Draw a picture to show the coins each boy might have.

Lee's Pocket

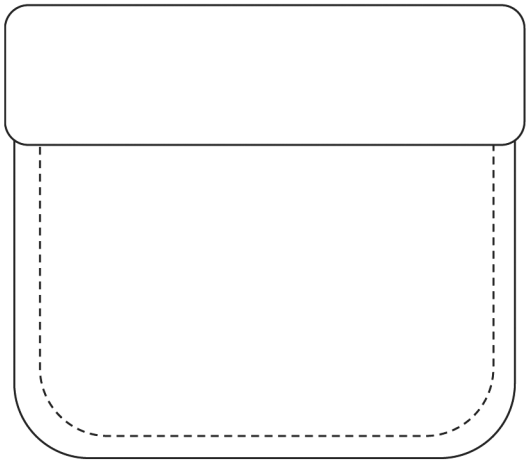


Pedro's Pocket

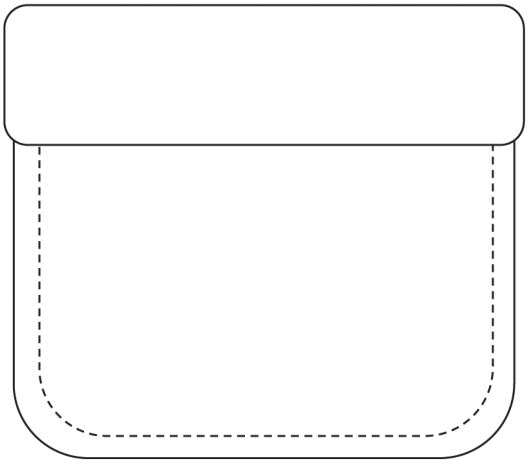


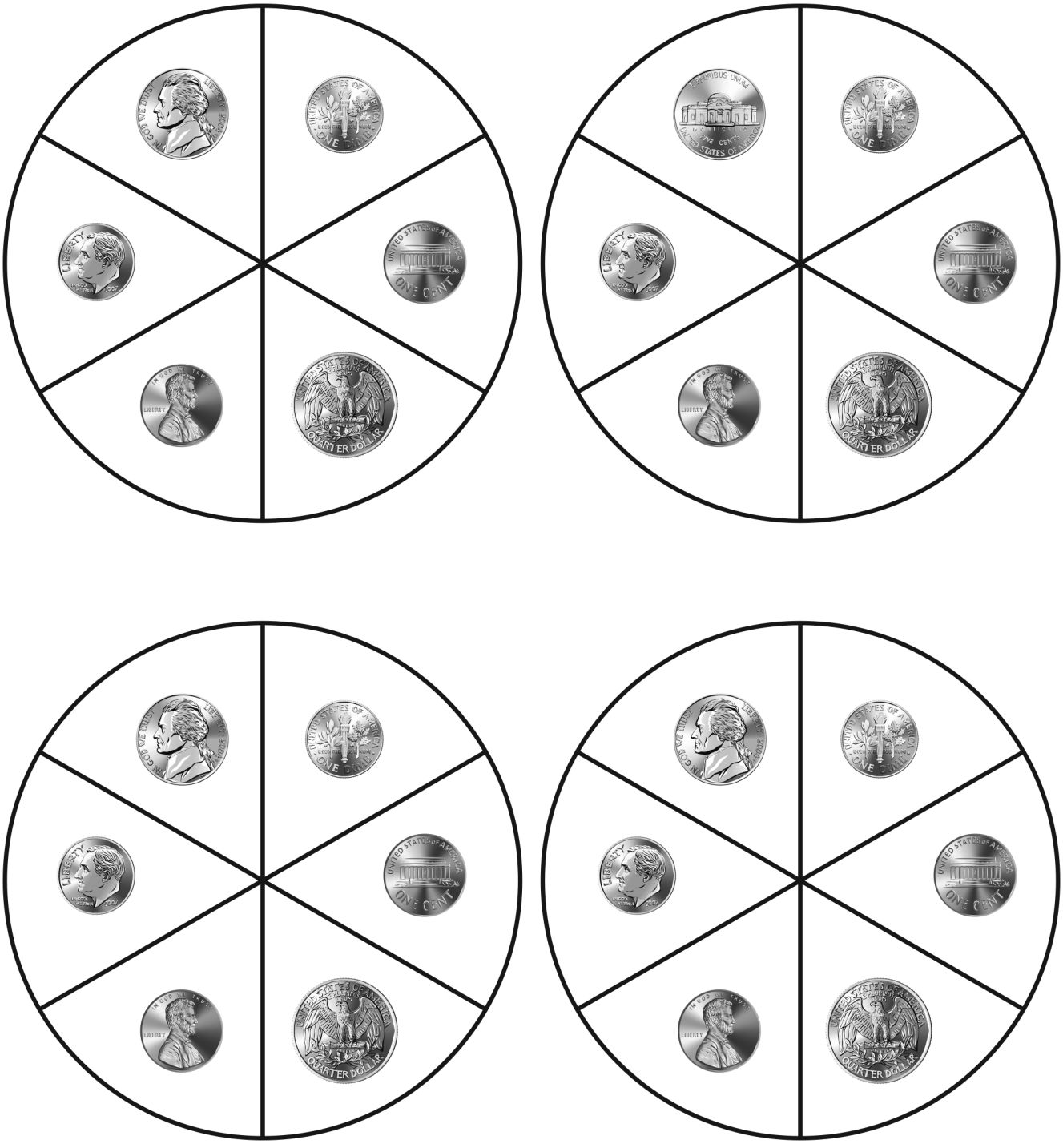
3. Bailey has 4 coins in her pocket, and Ingrid has 4 coins. Ingrid has more money than Bailey. Draw a picture to show the coins each girl might have.

Bailey's Pocket



Ingrid's Pocket





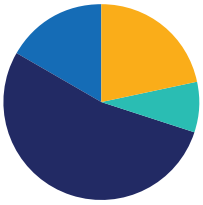
coin spinner with quarter

Lesson 21

Objective: Count on using pennies from any single coin.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: Subtraction Within 20 **1.3D, 1.3E** (8 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all questions correctly on their most recent Practice Set should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: Subtraction Within 20 (8 minutes)

Materials: (S) Personal white board

Note: This fluency activity shows which strategies students are using to subtract within 20. Students may show their work with a number bond, the arrow way, multi-step equations, or listing numbers to show how to count on.

Write the following list of strategies:

1. Count on or back.
2. Think of the addition problem.
3. Take from ten.
4. Use place value and a helper problem.

Say a subtraction expression. Students use their personal white boards to solve. Choose students who used different strategies to share what they did, or instruct students to share their strategies with a partner.

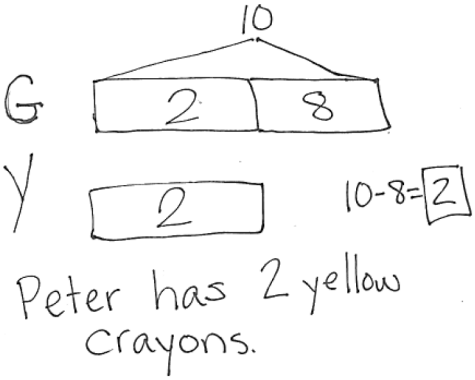
Suggested sequence:

- 15 – 1, 18 – 2
- 18 – 4, 19 – 7
- 12 – 3, 11 – 2
- 15 – 9, 17 – 8
- 16 – 14, 18 – 15

Application Problem (5 minutes)

Peter has 8 more green crayons than yellow crayons. Peter has 10 green crayons. How many yellow crayons does Peter have?

Note: Today's problem is a *compare with smaller unknown* where the problem suggests the wrong operation. Students are expected to have worked with these problems in Grade 1, but proficiency is not expected until the end of Grade 2. Consider scaffolding such as, "Set up your strip diagram to first show the same number of green crayons and yellow crayons. Does Peter have more green crayons or yellow crayons? Add another section (the *more* strip) to the green crayons. How many more green crayons does he have than yellow crayons?"



Concept Development (32 minutes)

Materials: (T) 1 quarter, 10 dimes, 10–12 nickels, 30 pennies (plastic or real), projector (S) 1 quarter, 3–5 dimes, 2–5 nickels, 25 pennies (plastic or real), 1 die per pair of students

Gather students in the meeting area with personal boards. Coins and dice are not needed until students play the game toward the end of the Concept Development. Before beginning the Concept Development, have students chorally count the value of the 10 dimes, 12 nickels and 30 pennies, counting by tens, fives and twos, respectively.

T: (Project 1 quarter.) What is the name of this coin?
S: A quarter!
T: What is its value?
S: 25 cents.
T: (Add 1 penny to the quarter being projected.) How much money is shown now?
S: 26 cents!
T: How do you know?
S: You added one penny. That's one cent more.
T: What is 1 quarter plus 1 penny, a quarpenny? No such thing! But we can add their *values*! Let's try.

T: Tell me an addition sentence that puts together the value of the quarter and the value of the penny.
S: 25 + 1 = 26.
T: Tell me an addition sentence that puts together the value of a dime and the value of 3 pennies.
S: 10 + 3 = 13.
T: So, a dime and 3 pennies would be how much money?
S: 13 cents.
T: Try some more!

Repeat the process by projecting the following sequence of coins:

- 1 quarter, add 3 pennies
- 3 dimes, add 6 pennies
  (Use 5-group formation to show the 6 pennies. Discuss why the 5-group formation helps students know the total amount of pennies without counting.)
- 1 nickel, add 4 pennies
- 4 pennies, add 1 nickel
  (Have students explain which coins they counted first and why. Accept both preferences.)

Practice counting on pennies using the following sequence:

- 3 pennies, 1 nickel
- 3 pennies, 1 quarter
- 4 pennies, 1 quarter

T: (Show 1 penny, 1 dime, 4 pennies.) How can we group these to make it simpler to count?
S: Put all the pennies together!
T: Great! Which will we be starting with, the dime or the pennies?
S: The dime!
T: That is just simpler; I agree. So, let's move all the pennies together and place them after the dime. (Move the first penny next to the 4 pennies.)
T: Tell me an addition sentence that puts together the value of a dime, the value of 4 pennies, and the value of 1 penny.
S: 10 + 4 + 1 = 15.

NOTES ON MULTIPLE MEANS OF EXPRESSION:

Some students may need support keeping track of counted and uncounted coins. Invite students to place their own coins out to match the teacher's set of coins. Using these coins, students may rearrange the coins or slide the coins over as they count.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Have students, who may need more support keeping track of their total coin values between turns, use their boards to keep track of their totals as they play.

Continue to practice counting on pennies, regardless of the order of the coins using the following sequence:

- 2 pennies, 1 dime, 2 pennies
- 2 pennies, 1 quarter, 3 pennies
- 1 quarter, 7 pennies
  (Be sure to use the 5-group formation when presenting the 7 pennies. Discuss how the formation can help students use the make ten strategy to add.)

Note: If time permits, have partners play First to 50 Cents (a version of Coin Exchange). The objective of the game is to be the first player with 50 cents.

First to 50 Cents

Players A and B each begin with 1 quarter.

1. Player A rolls the die and adds that many pennies to his quarter.
2. Player B rolls the die and adds that many pennies to her quarter.
3. Players continue to take turns until someone has at least 50 cents, trading pennies for nickels or dimes. No player who has 25 pennies can win!

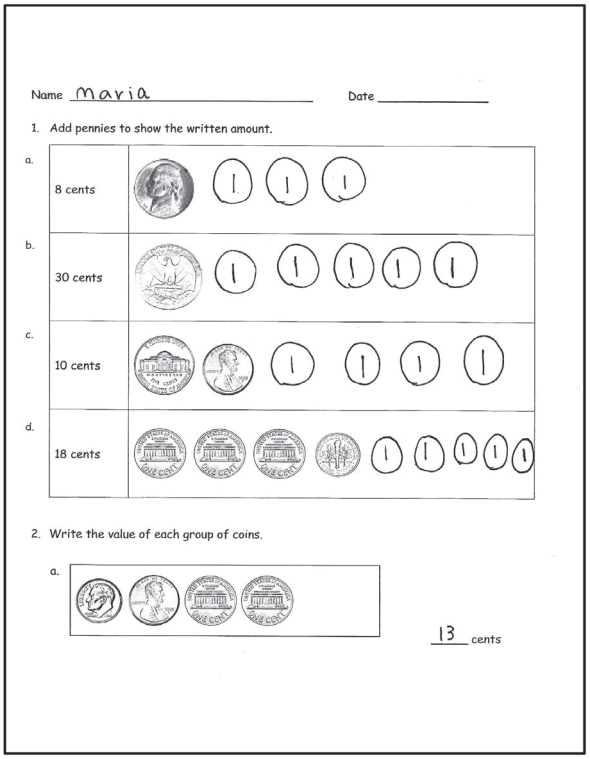
Players might trade pennies for nickels, dimes, and finally a quarter as they play.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Playing a game provides students, including some emergent bilingual students with opportunities to interact with classmates and practice their language skills.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.


Name Maria Date

1. Add pennies to show the written amount.

a. 8 cents

b. 30 cents

c. 10 cents

d. 18 cents

2. Write the value of each group of coins.

a. 13 cents

Student Debrief (10 minutes)

Lesson Objective: Count on using pennies from any single coin.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

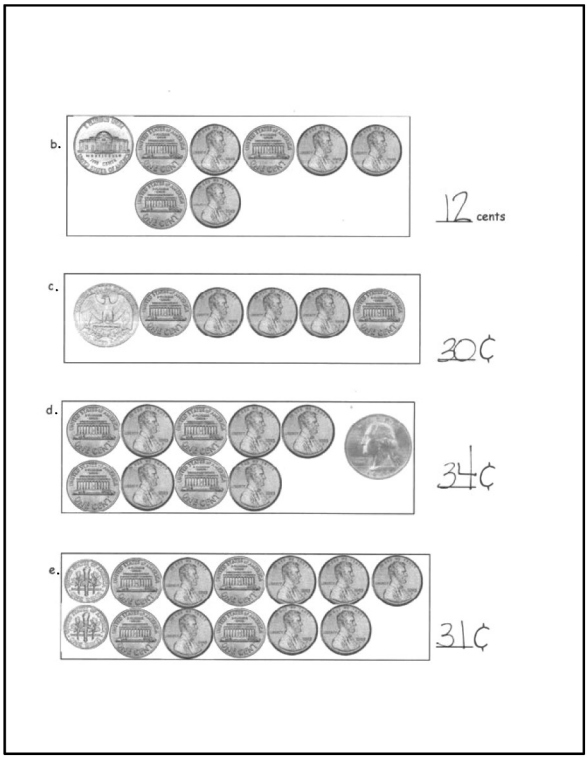
Any combination of the questions below may be used to lead the discussion.

- Look at Problem 2. How do 5-group formations help you count coins quickly?
- Three dimes and 1 dime is 4 dimes. Three pennies and 1 penny is 4 pennies. Why is it that 3 dimes and 1 penny don't equal 4 cents? What do we need to do in order to add dimes and pennies together? What is our label, or unit, to add 3 dimes and 1 penny in a number sentence? (30 cents + 1 cent = 31 cents. We change the unit to cents so that they have the same unit, which can be added together.)

- Look at Problem 2(b). How many cents are there? Look at Problem 2(c). How many cents are there? Why is the value of the coins in Problem 2(c) greater than the value of the coins in Problem 2(b) even though there are more coins in Problem 2(b)?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name _____ Date _____

1. Add pennies to show the written amount.

a.	8 cents	
b.	30 cents	
c.	10 cents	
d.	18 cents	

2. Write the value of each group of coins.

a. _____ cents

b.

_____ cents

c.

_____ ¢

d.

_____ ¢

e.

_____ ¢

Name _____ Date _____

Add pennies to show the written amount.

a.	9 cents	
b.	29¢	

Name _____ Date _____

1. Add pennies to show the written amount.

a.	15 cents	
b.	28 cents	
c.	22 cents	
d.	32 cents	

2. Write the value of each group of coins.

a. _____ cents

b.

_____ cents

c.

_____ ¢

d.

_____ ¢

e.

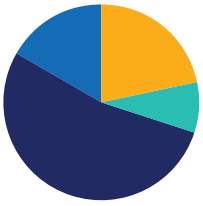
_____ ¢

Lesson 22

Objective: Use dimes and pennies as representations of numbers to 120.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(32 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Grade 1 Fluency Sprint **1.3D** (8 minutes)
- Standards Check: Place Value **1.2B** (3 minutes)
- Finger Counting Cents **1.4A, 1.4B** (2 minutes)

Grade 1 Fluency Sprint (8 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose a Sprint based on the needs of the class.

- Addition Sprint 1
- Addition Sprint 2
- Subtraction Sprint
- Fluency Sprint: Totals of 5, 6, and 7
- Fluency Sprint: Totals of 8, 9, and 10

Standards Check: Place Value (3 minutes)

Materials: (T/S) Personal white board

Note: This activity monitors students' understanding of place value.

Write a number on a personal white board, but do not show students.

T: My number has 1 ten and 3 ones. What's my number?
S: 13.
T: (Show the board.) What's the value of this 1? (Pause, and then signal.)

S: 10.

T: What's the value of this 3? (Pause, and then signal.)

S: 3.

Repeat with the following suggested sequence: 22, 27, 66, 63, 36, 90, and 99. Alternate saying the number in the ones place first and saying the number in the tens place first. For the last minute, write a two-digit number, and ask students to write the value of one of the digits on their personal white boards.

T: (Show 53.) Write the value of the 5.

S: (Write 50.)

Finger Counting Cents (2 minutes)

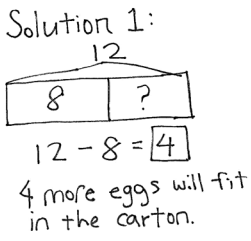
Conduct the activity as outlined in Lesson 19.

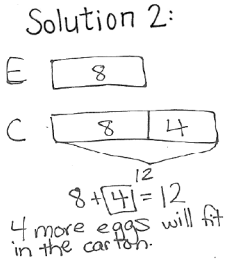
Note: This fluency bridges counting by the units of ones and tens to counting using cents. Students also recall the cent symbol.

Application Problem (5 minutes)

There are 8 eggs in the carton. The carton can hold 12 eggs. How many more eggs will fit in the carton?

Note: Today's problem is a *join with addend unknown* problem type where students are looking for a missing part. A single strip is effective, especially since the problem is talking about one carton of eggs that looks like a single strip.





However, some students may want to model the problem with two bars, in a sense comparing the given part with the known total. This does make sense, especially considering they have been working with comparison problems recently. Both solutions are modeled.

Concept Development (32 minutes)

Materials: (T) 12 dimes, 10 pennies (plastic or real), projector (S) 12 dimes, 10 pennies (plastic or real), personal white board

Pair students. Pairs begin the lesson at their desks or tables with all materials.

T: (Write 80¢ on the board.) Use your coins to represent this number. Draw a matching place value chart on your personal white board.

S: (Use 8 dimes. Some may use 7 dimes and 10 pennies, which is considered correct as long as the student's place value chart matches his chosen representation.)

T: If I used only dimes to represent 80, how many dimes would I need?

S: 8 dimes!

T: How many tens are in 80?
S: 8 tens!

Repeat the process with the following suggested sequence: 50¢, 68¢, 82¢.

Students may be encouraged to write the total value represented on the place value mat using a numeral and the cent symbol.

T: (Write 90¢ on the board.) Use your coins to represent this number. Draw a matching place value chart on your personal board.
S: (Use 9 dimes.)
T: If I used only dimes to represent 90, how many dimes would I need?
S: 9 dimes!
T: How many tens are in 90?
S: 9 tens!
T: (Write 92¢ on the board.) Use your coins to represent this number. Draw a matching place value chart on your personal white board.
S: (Use 9 dimes and 2 pennies.)
T: How many dimes would I need?
S: 9 dimes!
T: How many pennies?
S: 2 pennies!
T: How many tens and how many ones is this?
S: 9 tens and 2 ones.
T: (Write 100¢ on the board.) How many tens are in 100? Use your dimes to show 100 cents. (Wait as students count out 10 dimes.)
S: (Show 10 dimes.)
T: How many dimes did we use to make 100 cents?
S: 10 dimes!
T: How many tens do you have?
S: 10 tens.
T: (Next to 100, add a place value chart showing 10 tens.)
T: Do we need any additional pennies?
S: No.
T: (Write 0 in the ones place on the place value chart.)
T: (Point to the place value chart.) 10 tens 0 ones is…?
S: 100.
T: Let's add 1 more dime. (Wait as students add 1 dime to their collection.) How many dimes do you have now?
S: 11 dimes!

T: Draw a place value chart on your personal white board to show 11 tens 0 ones. (Wait as students show this.)

T: (Write 100¢ + 10¢ on the board.) We added ten cents to one hundred cents. How many cents do we have now?

S: 110 cents.

T: How many tens are in 110 cents?

S: 11 tens!

T: Let's add 1 more dime. (Wait as students add 1 dime to their collection.) How many dimes do you have now?

S: 12 dimes!

T: Draw a place value chart on your personal white board to show 12 tens 0 ones. (Wait as students show this.)

T: (Write 100¢ + 20¢ on the board.) We had 100 cents. Then, we added 2 more dimes for 20 more cents. How many cents do we have now?

S: 120 cents.

T: Look at your dimes. How many tens are in 120 cents?

S: 12 tens!

Note: Some students may be familiar with the value of a dollar and may bring up that 100 cents is 1 dollar or that 120 cents is $1.20. Let them know they are correct, but refocus them back to the number of tens (dimes) and ones (pennies), as that is the focus of this lesson.

Project the following sequences of coins, and have students determine their total value:

- 4 dimes, 8 pennies
- 4 dimes, 10 pennies
- 4 dimes, 12 pennies
- 5 pennies, 6 dimes
- 15 pennies, 6 dimes
- 10 dimes, 10 pennies

If students need more practice or support representing the numbers or the coins, continue presenting more two-digit numbers.

If students demonstrate strong skills in representing numbers to 120 using dimes and pennies, connect their understanding with their addition work from Topic C as shown below:

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students may need more support determining the value of coins when two different coins are used. Have them count one type of coin at a time and use their personal white boards to help them keep track of what they have counted.

For students needing additional support, including some emergent bilingual students, consider providing them with sentence frames to review the value of coins: A _____ is worth _____ cents.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Consider the needs of your class and challenge students that demonstrate proficiency. As an extension to the lesson, add 2 or 4 nickels to the sequence to the left, and have students share their strategies to solve. They may count the nickels as nickels, count the nickels together as a ten, or ask to exchange two nickels for one dime.

T: (Write 52¢ on the board.) Partner A, use your coins to represent this number using as many dimes as you can.

T: (Write 20¢ on the board.) Partner B, use your coins to represent this number using as many dimes as you can.

T: (Place an addition symbol between the numbers to create an expression.) Add your coins together. How much do you have? (Wait as students add the coins.)

S: 72 cents!

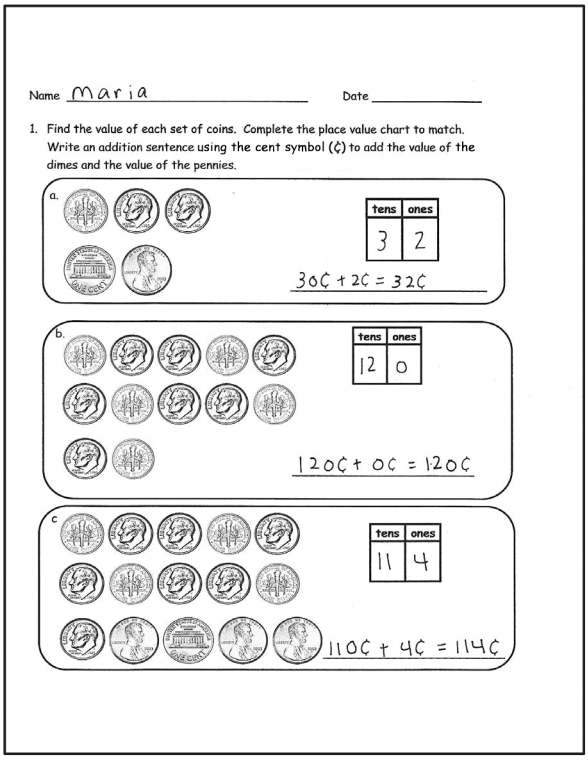
T: On your personal board, solve 52¢ + 20¢. (Wait as students solve.) How did you solve this problem?

S: I lined up my numbers and added the ones with ones and the tens with tens. There were only 2 ones. 5 tens + 2 tens is 7 tens. The total is 72. → I did the same thing. It's just like adding the dimes with the dimes. There were 2 pennies. Then, 5 dimes plus 2 dimes was 7 dimes. That makes 72 cents! → I added 2 tens. 52, 62, 72. → That's like counting on the dimes.

Repeat the process using the following suggested sequence: 52¢ + 24¢, 59¢ + 30¢, 59¢ + 31¢, 59¢ + 34¢. Encourage students to write the total using the cent symbol. As students share their solution strategies, ask them to make connections between their coins and their written notation. What similarities do they notice? What number bonds do they see represented by the coin combinations?

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.


Name Maria Date

1. Find the value of each set of coins. Complete the place value chart to match. Write an addition sentence using the cent symbol (¢) to add the value of the dimes and the value of the pennies.

a.

tens	ones
3	2

30¢ + 2¢ = 32¢

b.

tens	ones
12	0

120¢ + 0¢ = 120¢

c.

tens	ones
11	4

110¢ + 4¢ = 114¢

Student Debrief (10 minutes)

Lesson Objective: Use dimes and pennies as representations of numbers to 120.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

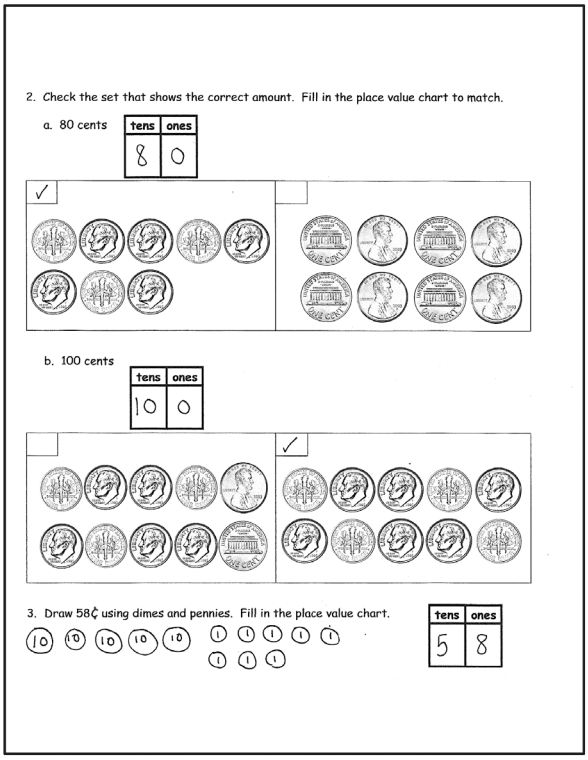
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 2(a). How did you determine which set of 8 would make 80 cents? What is the value of the other set? How would a place value chart for 8 pennies look compared to the place value chart for 8 dimes?
- Look at Problem 2(b). What is the value of the set that does *not* equal 100 cents? How would you show this value in a place value chart?
- Look at Problem 3. What is another way to show 58 cents?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.


2. Check the set that shows the correct amount. Fill in the place value chart to match.

a. 80 cents

tens	ones
8	0

b. 100 cents

tens	ones
10	0

3. Draw 58¢ using dimes and pennies. Fill in the place value chart.

tens	ones
5	8

Name _____ Date _____

1. Find the value of each set of coins. Complete the place value chart to match. Write an addition sentence using the cent symbol (¢) to add the value of the dimes and the value of the pennies.

a.

tens	ones

_____

b.

tens	ones

_____

c.

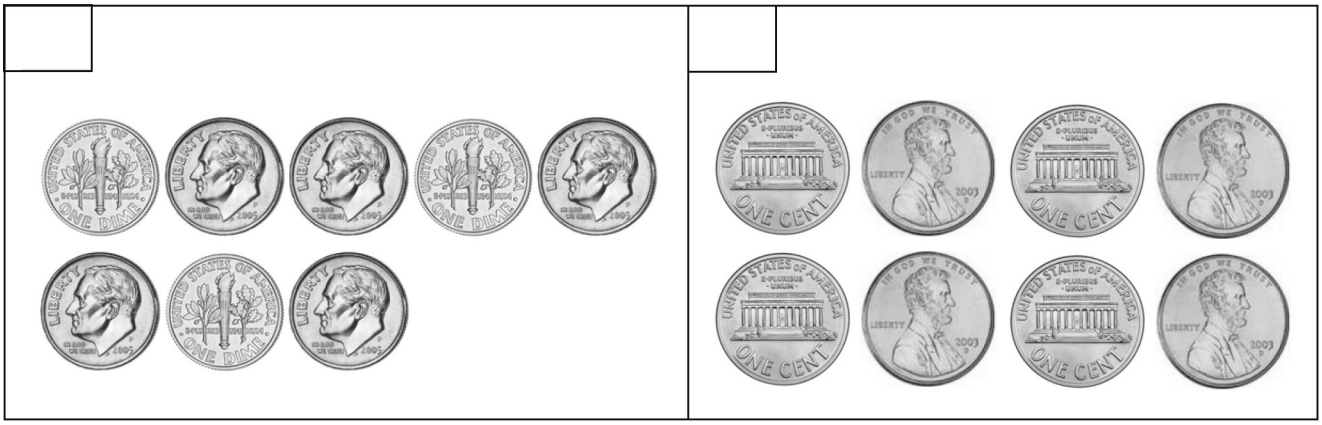
tens	ones

_____

2. Check the set that shows the correct amount. Fill in the place value chart to match.

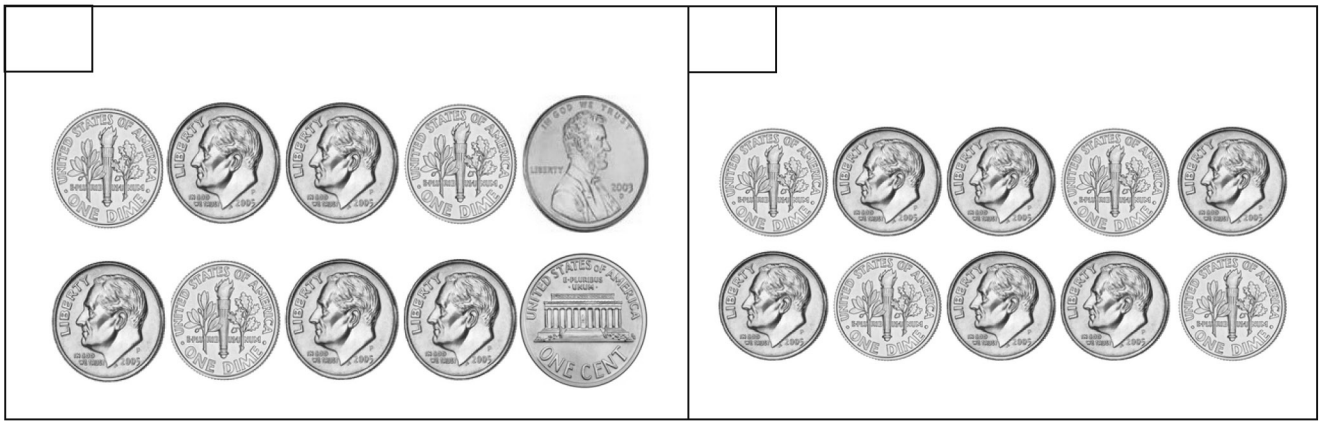
a. 80 cents

tens	ones



b. 100 cents

tens	ones



3. Draw 58¢ using dimes and pennies. Fill in the place value chart.

tens	ones

Name _____ Date _____

Find the value of the set of coins. Complete the place value chart to match.
Write an addition sentence using the cent symbol (¢) to add the value of the dimes and the value of the pennies.

tens	ones

_____

Name _____ Date _____

1. Find the value of each set of coins. Complete the place value chart. Write an addition sentence using the cent symbol (¢) to add the value of the dimes and the value of the pennies.

a.

tens	ones

_____

b.

tens	ones

_____

c.

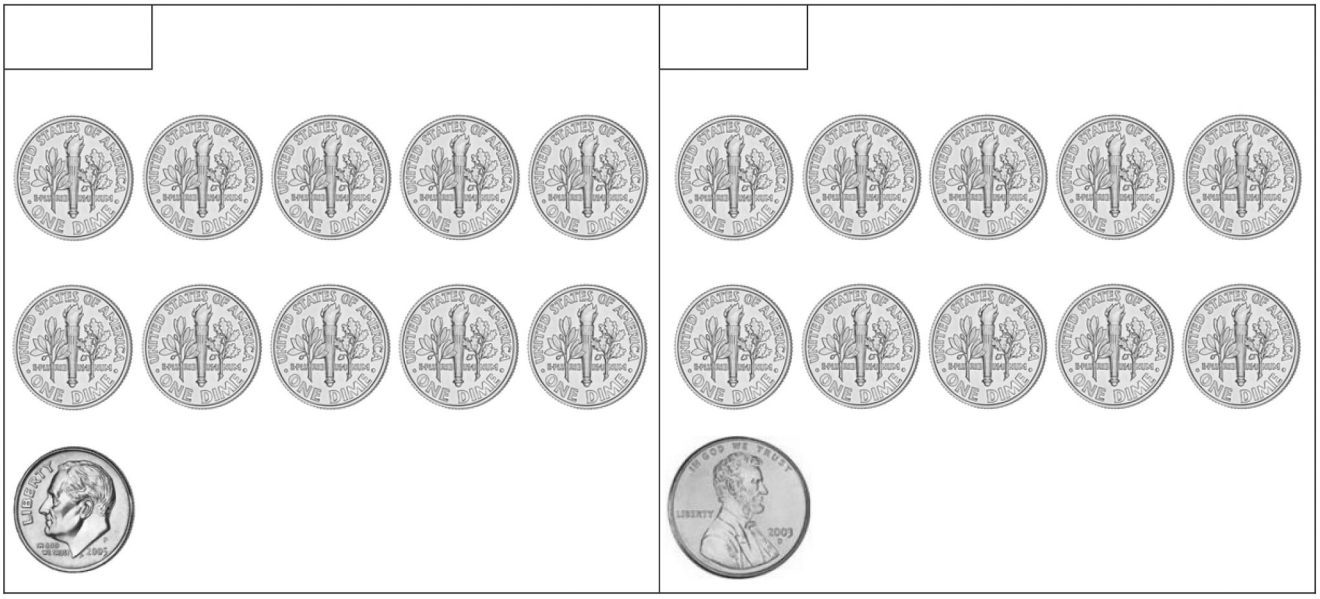
tens	ones

_____

2. Check the set that shows the correct amount. Fill in the place value chart to match.

110 cents

tens	ones



3. a. Draw 79¢ using dimes and pennies. Fill in the place value chart to match.

tens	ones

b. Draw 118 cents using dimes and pennies. Fill in the place value chart to match.

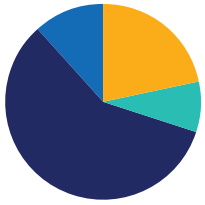
tens	ones

Lesson 23

Objective: Determine the value of a collection of coins.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Application Problem	(5 minutes)
Concept Development	(35 minutes)
Student Debrief	(7 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: Subtraction Within 20 **1.3D, 1.3E** (8 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all questions correctly on their most recent Practice Set should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: Subtraction Within 20 (8 minutes)

Materials: (S) Personal white board

Note: This fluency activity shows which strategies students are using to subtract within 20. Students may show their work with a number bond, the arrow way, multi-step equations, or listing numbers to show how to count on.

Write the following list of strategies:

1. Count on or back.
2. Think of the addition problem.
3. Take from ten.
4. Use place value and a helper problem.

Say a subtraction expression. Students use their personal white boards to solve. Choose students who used different strategies to share what they did or instruct students to share their strategies with a partner. Suggested sequence:

- 13 – 1, 15 – 2
- 17 – 4, 18 – 7
- 12 – 3, 11 – 2
- 16 – 9, 17 – 9
- 16 – 12, 18 – 14

Application Problem (5 minutes)

Materials: (T) Paper coins (Template 1)

Read the following problem to students two or three times. As you read each coin name, display the matching paper coins (Template 1).

T: Nora has a dime. Jennifer has a nickel. Tony has a quarter. Jonas has a penny. Whose coin is worth the most? Whose coin is worth the least? If an apple costs 8 cents, who has enough money to buy an apple?

Concept Development (35 minutes)

Materials: (T) Paper coins (Template 1), grocery images (Template 2)
(S) Personal white board, bag of plastic or real coins: 10 pennies, 10 nickels, and 10 dimes

Prior to today's lesson, prepare a bag of coins for each student: 10 pennies, 10 nickels, and 10 dimes.

Distribute a personal white board and bag of coins to each student.

T: (Review coin names and values. Display a paper coin, and have students record its value on their personal white boards.) Look at this coin and record its value on your white board. Be sure to include the cent symbol. When I clap my hands, hold up your white board for me to see.

Continue to display paper coins and have students record values until this process has been repeated for the penny, nickel, dime, and quarter.

T: Last night, I was playing pretend grocery store with my child. I had a bag full of coins, just like the bag I gave you. When the cashier told me the price of each item, I couldn't remember the value of my coins. When I show you a price, help me find a set of coins to match.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Support students, including some emergent bilingual students, in understanding the word *value*, or what something is worth. Consider offering alternative tools, such as a number path or hundreds chart. Have students place the coins on the path or chart as they count to determine the total value. When counting the value of 3 dimes, for example, gesture to each coin and use prompts such as the following:

- A dime has a value of 10 cents. It goes on the number 10.
- What number is 10 more than 10?
- (Place a dime on the number 20.) So, 2 dimes have a value of …?

T: (Display the popcorn image.) This popcorn costs 30 cents. Use your coins to show how I could have paid for the popcorn.
S: (Represent 30 cents.)
T: How did you use your coins to make 30 cents?
S: I used 3 dimes.
T: What is each dime worth?
S: 10 cents.
T: Put 3 dimes in front of you. Let's count them by tens to see if 3 dimes equal 30 cents.
T/S: 10, 20, 30.
T: Is there another way to use our coins to make 30 cents?
S: Use 6 nickels.
T: What is each nickel worth?
S: 5 cents.
T: Put 6 nickels in front of you. Let's count them by fives to see if 6 nickels equal 30 cents.
T/S: 5, 10, 15, 20, 25, 30.
T: Is there any other way to show 30 cents using coins?
S: Use 4 nickels and 10 pennies.
T: Put 4 nickels and 10 pennies in front of you. When you have a set of mixed coins like this, group the nickels together and then group the pennies together. Count the nickels by fives. Then count the pennies. Let's try together.
T/S: 5, 10, 15, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30.
T: There are many ways to represent 30 cents using coins. Now, look at this bag of chips. (Display the chips image.) This bag of chips costs 8 cents. Use your coins to show how I could have paid for the bag of chips.
S: (Represent 8 cents.)
T: How did you use your coins to show 8 cents?
T: 8 pennies.
T: Yes. Each penny is worth 1 cent. One way to count the pennies is to put them in groups of 2 and count them by twos. Make sure you have 8 pennies in front of you. Then, put them in groups of two.
S: (Put 8 pennies into groups of 2.)
T: Let's count by twos to see if 8 pennies equal 8 cents.
T/S: 2, 4, 6, 8.
T: Is there any other way you could make 8 cents using coins?
S: Use 1 nickel and 3 pennies.
T: Yes. We can start by saying "5" to count the nickel. Then, count the pennies. Let's try it.
T/S: 5, 6, 7, 8.

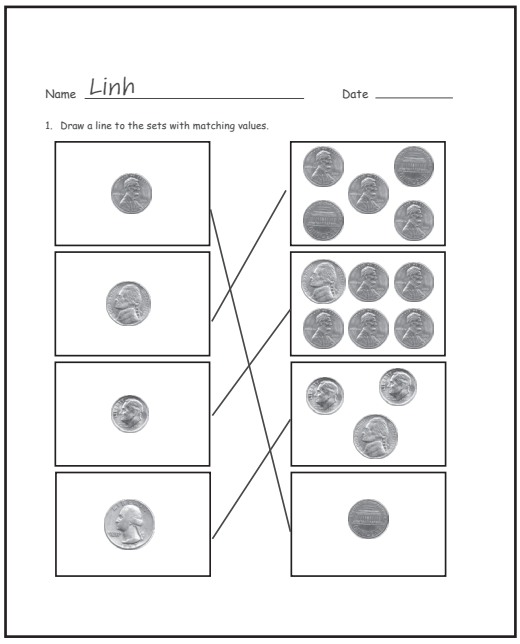
NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Consider setting up a class store. Have your students purchase small items in your classroom (e.g., an eraser, a fidget toy, a squishy ball) using their bag of mixed coins. Invite students to buy things in the store during math time or at other times throughout the day.

Repeat this process with the soda (46 cents) and juice images (54 cents). As students find ways to make each amount, encourage the class to group like coins together and use skip-counting to check their solutions.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

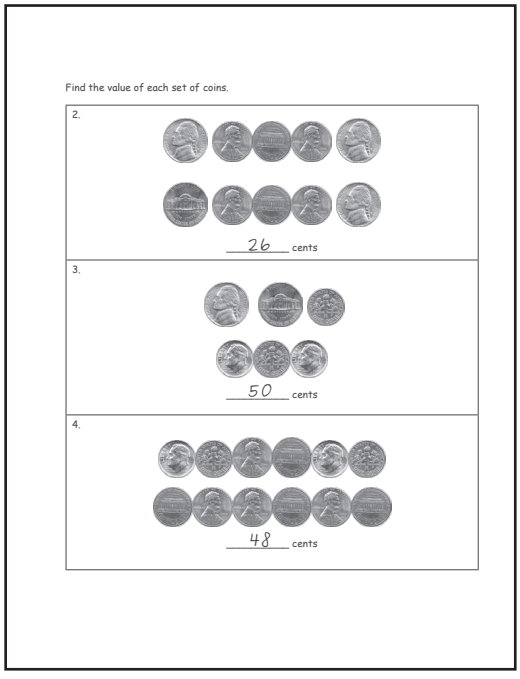


Student Debrief (7 minutes)

Lesson Objective: Determine the value of a collection of coins.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.



Any combination of the questions below may be used to lead the discussion.

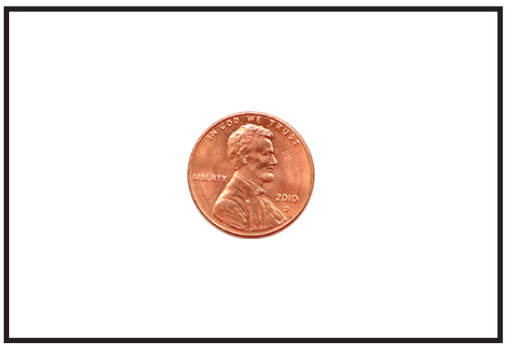
- Look at Problem 1. What is the value of each coin along the left side of your paper?
- If you didn't have a dime, what are some other ways to represent 10 cents?
- If you didn't have a nickel, what is another way to represent 5 cents?
- What is the value of the coins in Problem 3? Are there other ways to show this amount?
- How did skip-counting help you answer Problem 4?
- Why is it important to know how to skip-count when counting coins?

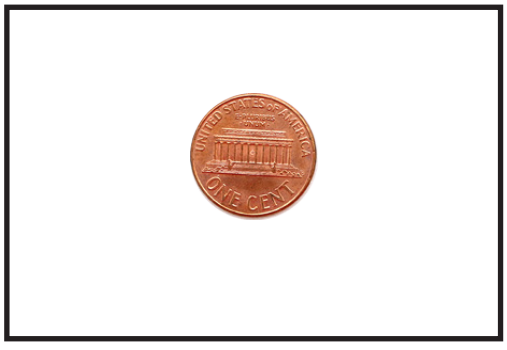
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Draw a line to the sets with matching values.





Find the value of each set of coins.

2.

_____ cents

3.

_____ cents

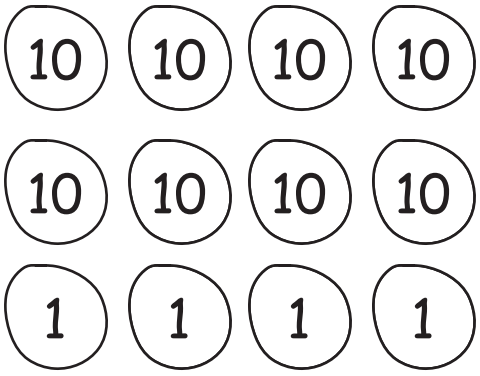
4.

_____ cents

Name _____ Date _____

Use coins to make each amount. Draw a picture to match your work.

The first problem is done for you.

1. 84 cents	
2. 42 cents	
3. 75 cents	

Name _____ Date _____

Circle some coins to match the amount in the box.

1.

24¢

2.

45¢

LIBERTY
IN GOD WE TRUST
1980

LIBERTY
IN GOD WE TRUST
2007

UNITED STATES OF AMERICA
E PLURIBUS UNUM
QUARTER DOLLAR

UNITED STATES OF AMERICA
E·PLU RIB US·U NUM
ONE DIME

paper coins

IN GOD WE TRUST
LIBERTY
2004

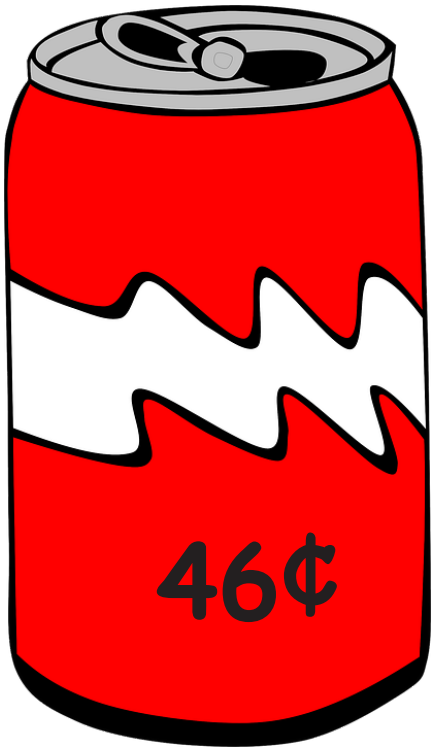
IN GOD WE TRUST
LIBERTY

E PLURIBUS UNUM
MONTICELLO
FIVE CENTS
UNITED STATES OF AMERICA

UNITED STATES OF AMERICA
ONE CENT

paper coins

grocery images



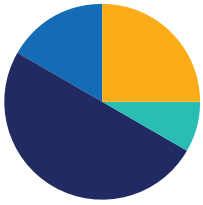
grocery images

Lesson 24

Objective: Determine the value of a collection of coins.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Application Problem	(5 minutes)
Concept Development	(30 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (8 minutes)
- Standards Check: Place Value **1.2B** (5 minutes)
- Finger Counting Cents **1.4A, 1.4B** (2 minutes)

Grade 1 Fluency Sprint (8 minutes)

Materials: (S) Fluency Sprints (Lesson 3)

Note: Choose a Sprint based on the needs of the class.

- Addition Sprint 1
- Addition Sprint 2
- Subtraction Sprint
- Fluency Sprint: Totals of 5, 6, and 7
- Fluency Sprint: Totals of 8, 9, and 10

Standards Check: Place Value (5 minutes)

Materials: (T/S) Personal white board

Conduct activity as outlined in Lesson 29.

Note: This activity monitors students' understanding of place value. Write a number on a personal white board, but do not show students.

Finger Counting Cents (2 minutes)

Conduct the activity as outlined in Lesson 19.

Note: This fluency bridges counting by the units of ones and tens to counting using cents. Students also recall the cent symbol.

Application Problem (5 minutes)

Materials: (T) Paper coins (Template 1)

Read the following problem to students two or three times. As you read each coin name, display the matching paper coins (Template 1).

T: Zelda has a dime. Matt has a nickel. Silas has a quarter. Mr. Wilson gives each child 4 pennies for helping rake leaves. How many cents does each child have now?

Provide quiet think time. Then have students discuss their solutions with partners. Ask partners to share their solutions with the whole group. As students share, it may be helpful to create a chart to organize students' thinking (see example to the right).

	Starts with	Gets	Total
Zelda	10¢	4¢	
Matt	5¢	4¢	
Silas	25¢	4¢	

Concept Development (30 minutes)

Materials: (T) Coin cards (Template 2) (S) hundred chart

Prepare for today's lesson by making enough copies of the coin cards (Template 2) so each student can receive two cards. Cut the cards apart.

Part 1: Counting Coins

T: (Display the following coin cards: 2 pennies and 3 nickels.) We just learned how to find the value of a set of coins. Who can show us how to find the value of 2 pennies and 3 nickels?

S: (Student models.) I start by grouping the nickels together and then I group the pennies together. Then, I begin by counting the coins with the greatest value. That's the nickels: 5, 10, 15. Then, I count on from there: 16, 17. This set of coins is worth 17 cents.

T: Yes! It's helpful to count the coins with the greatest value first. Once you decide which coins have the greatest value, you can count them using skip-counting.

T: (Display the following coin cards: 3 nickels, 2 dimes, and 3 pennies.) Let's try another set. Who can model how to find the value of this set of coins?

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Students who may need more support, including some emergent bilingual students, may benefit from seeing a chart displaying the different coins and their values. Students can reference this chart as they identify the value of each individual coin and as they determine how to count to find the value of the set (i.e., by ones, fives, or tens).

S: (Student models.) I start by putting the coins in order from greatest value to least value. That's dimes, nickels, and then pennies. I'll start by skip-counting the dimes: 10, 20, 30. I'm not sure what to do next.

T: (Distribute hundred charts to students.) When counting coins is tricky, use a hundred chart as a helpful tool. Our first coin is a dime. Place your finger on 10 on your hundred chart. Our next coin is a dime, so jump ten more on your hundred chart. We have one more dime, so jump ten more. What number are we on now?

S: 30.

T: Great! Next, let's count our nickels. We have 3 nickels. Use your hundred chart as a tool to skip-count by fives 3 times. Put your finger on the number where you stop counting. What number are you touching?

S: 45.

T: Yes! Last, we have 3 pennies. Count on 3. What is the total value of our coins?

S: 48 cents.

T: Today and every day, you can order your coins from greatest to least when you count them. You can also use a hundred chart to help you.

Part 2: Coin Collections

Distribute two coin cards to each student.

T: Now that you've practiced counting sets of coins, let's play a game. Each of you has a coin card. When I say *go*, walk around the room. When I say *stop*, form a group of four. Each group will work together to find the total value of their coins. You may carry a hundred chart with you to help you.

Continue to play several rounds of Collecting Coins. As students work, provide some of the following helpful suggestions:

- Begin by grouping like coins.
- Start by counting the coins with the greatest value.
- Skip-count when it makes sense.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

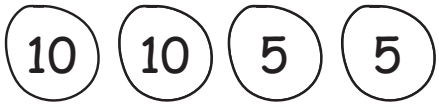
As time allows or during another time in the day, have students play one of the games learned in the previous lessons.

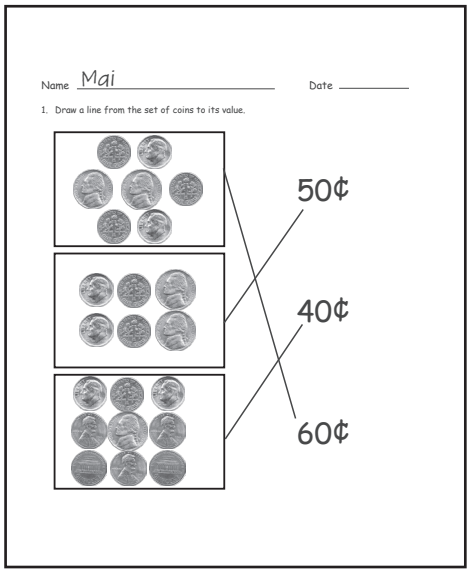
- To practice learning the values of a dime, nickel, and penny, play Coin Trade.
- To practice adding on coins and trading coins, play 25 Cents.
- To practice adding on coins to a quarter and trading coins, play First to 50 Cents.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Note: For Problem 3, students may draw circles labeled with numbers to represent their coins. Example:





Student Debrief (10 minutes)

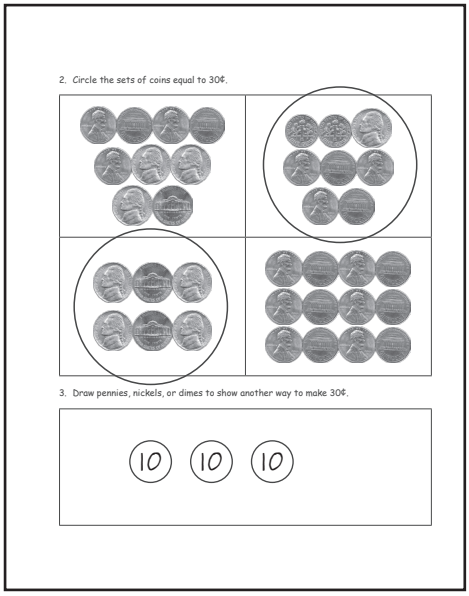
Lesson Objective: Determine the value of a collection of coins.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. Which set of coins was simpler for you to count? Which set of coins was trickiest to count? Why?
- How can skip-counting help you find the value of a set of coins?
- How can skip-counting help you count pennies? (Place the pennies in groups of two.)
- Look at Problem 3. Compare your solution to your partner's solution. How are they the same or how are they different? Is there more than one solution to this problem?
- If you were teaching a friend to count sets of coins, what helpful tips would you give them?



Exit Ticket (5 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

1. Draw a line from the set of coins to its value.

50¢

40¢

60¢

2. Circle the sets of coins equal to 30¢.

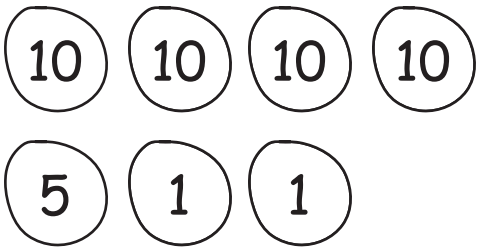
3. Draw pennies, nickels, or dimes to show another way to make 30¢.

Name _____ Date _____

Use coins to make each amount. Draw a picture to match your work.

The first problem is done for you.

1. 47¢



2. 80¢

3. 98¢

Name _____ Date _____

Circle coins to match the amount in the box.

1.

64¢

2.

53¢

3. Find the value of this set of coins.

_____ cents

LIBERTY
IN GOD WE TRUST
1980

LIBERTY
IN GOD WE TRUST
2007

UNITED STATES OF AMERICA
E PLURIBUS UNUM
QUARTER DOLLAR

UNITED STATES OF AMERICA
E·PLU RIB US·U NUM
ONE DIME

paper coins

IN GOD WE TRUST
LIBERTY
2004

IN GOD WE TRUST
LIBERTY

E PLURIBUS UNUM
MONTICELLO
FIVE CENTS
UNITED STATES OF AMERICA

UNITED STATES OF AMERICA
ONE CENT

paper coins

IN GOD WE TRUST LIBERTY 2010 D	UNITED STATES OF AMERICA ONE CENT
IN GOD WE TRUST LIBERTY 1905	E PLURIBUS UNUM MONTICELLO FIVE CENTS UNITED STATES OF AMERICA
LIBERTY IN GOD WE TRUST 2014 D	UNITED STATES OF AMERICA ONE DIME

coin cards

Topic D

Income and Responsible Spending

1.9A, 1.9B, 1.9C, 1.9D

Focus Standards:		1.9A	Define money earned as income.
		1.9B	Identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs.
		1.9C	Distinguish between spending and saving.
		1.9D	Consider charitable giving.
Instructional Days:		3	
Coherence	**-Links from:**	GK–M5	Numbers 10-20, Counting to 100, and Understanding Work
	-Links to:	G2–M7	Problem Solving with Length, Money, and Data

In Topic D, students expand their understanding of how people obtain and use money. In Lesson 25, students define the term income and look at ways to earn money (**1.9A**). They learn income is money that is used to buy goods and services, and often people must make choices between their wants and needs when spending their income (**1.9B**). Students then look at ways money is used, which they categorize as either spending or saving in the short and long term (**1.9C**).

In Lesson 26, students explore wants and needs in reference to how money can be spent. In Kindergarten, students began differentiating between wants and needs. Now they take that distinction further, understanding that people have limited funds and need to make choices about how to spend money (**1.9B**). They also explore the idea that wants and needs vary by family and circumstance.

Finally, in Lesson 27, students are exposed to ways of giving to others. They are encouraged to consider charitable giving as an option for using their money, time, and resources (**1.9D**). Throughout this topic, students apply financial literacy vocabulary to word problems, and they use strip diagrams to help them practice comparing numbers and finding missing parts and wholes.

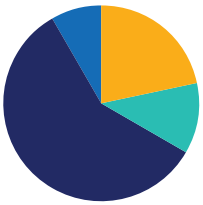
A Teaching Sequence Toward Proficiency in Income and Responsible Spending	
Objective 1:	**Understand spending and saving income. (Lesson 25)**
Objective 2:	**Understand the difference between wants and needs. (Lesson 26)**
Objective 3:	**Consider charitable giving as an option for spending money. (Lesson 27)**

Lesson 25

Objective: Understand spending and saving income.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (12 minutes)

- Coin Flash **1.4A** (2 minutes)
- Counting Coins **1.5B, 1.4C** (5 minutes)
- Rekenrek: Counting Cents **1.4C** (5 minutes)

Coin Flash (2 minutes)

Materials: (T) 1 penny, 1 nickel, 1 dime, and 1 quarter, or pictures of both sides of these coins

Note: This activity helps students maintain their ability to identify U.S. coins and their values.

In random order, hold up each coin, showing one side or the other.

T: What coin do you see? What is its value?

Counting Coins (5 minutes)

Materials: (T) 120 pennies, 24 nickels, and 12 dimes

Note: This activity helps students maintain their ability to count by twos, fives, and tens.

Count pennies by twos, up to 120 cents. Then count nickels by fives and dimes by tens, up to 120 cents.

Rekenrek: Counting Cents (5 minutes)

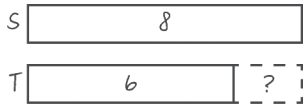
Materials: (T) Rekenrek

Note: This activity helps students decompose 25 into tens, fives and ones.

T: We will use the Rekenrek to count by cents. Each bead represents 1 cent. Count as I move the beads. (Move the Rekenrek beads one at a time from left to right.)
S: 1 cent, 2 cents, 3 cents, 4 cents, 5 cents.
T: Stop! What coin has a value of 5 cents?
S: A nickel.
T: Continue to count.
S: 6 cents, 7 cents, 8 cents, 9 cents, 10 cents.
T: Stop! What coin has a value of 10 cents?
S: A dime.
T: How many nickels make 10 cents? (Motion on the Rekenrek to show 2 groups of 5, each group representing 1 nickel.)
S: 2.
T: Continue to count.
S: 11 cents, 12 cents, 13 cents, 14 cents, 15 cents.
T: Stop! How many nickels make 15 cents?
S: 3.
T: How many dimes and how many nickels make 15 cents?
S: One dime and one nickel.
T: Continue to count.
S: 16 cents, 17 cents, 18 cents, 19 cents, 20 cents.
T: Stop! How many dimes make 20 cents?
S: 2 dimes.
T: How many nickels make 20 cents?
S: 4 nickels.
T: Continue to count.
S: 21 cents, 22 cents, 23 cents, 24 cents, 25 cents.
T: Stop! What coin has a value of 25 cents?
S: A quarter.
T: How many nickels make 25 cents?
S: 5 nickels.
T: How many dimes and how many nickels make 25 cents?
S: 2 dimes and 1 nickel. → 1 dime and 3 nickels.
T: Draw a cent sign in the air.
S: (Draw in the air.)

Application Problem (5 minutes)

Sue earned 8 dollars raking leaves. Tim earned 6 dollars selling old toys. How many more dollars did Sue earn than Tim?



Sue earned 2 dollars more than Tim.

Note: This application problem reviews the Kindergarten concept of earning money.

Concept Development (33 minutes)

Part 1: Define *gifts* and *income*.

Materials: (T) Large sticky notes

Note: In this activity, students generate a list of ways people get money. The list is then organized into more specific categories: gifts and money earned. Money earned is then defined as *income*. Record student responses on sticky notes, so they can be rearranged as the graphic organizer shown below is developed. The list of ways people get money should include gifts and money earned through work (income). Income should include both sales of goods and services. Some prompting may be necessary so that students include items in each category.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, benefit from the use of a graphic organizer, as shown in this lesson. Consider including pictures under the words to help define them. For example, a picture of a dollar bill pointing to the inside of a wrapped present might help define *gift*. A picture of a child mowing a lawn might help define *services*. A picture of a child selling lemonade might help define *goods*.

T: (Start the graphic organize shown below by writing the title *How People Get Money*.) How do grown-ups get money? Let's make a list. (Record student responses on sticky notes.)

S: My dad is a bus driver. → My mom is a teacher. → My father has a clothing store. → My aunt runs a supermarket. → My uncle sells toys. → My mother has a bakery. → My uncle is a firefighter. → My dad fixes computers. → My cousin sells air conditioners.

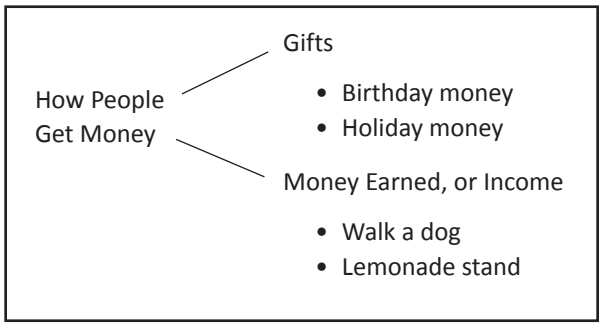
T: Some students also have ways of getting money. How do you or other students you know get money?

S: My neighbor pays me for raking leaves. → My grandma sends me money for my birthday. → I had a bake sale once. → My family gives me an allowance for doing chores. → I walk my neighbor's dog. → My uncle sent me money for a holiday. → I had a lemonade stand in the summer.

T: You learned in Kindergarten that if someone gets money from selling something or doing a job, we say that money is **earned**. People can also get money as a **gift**. Let's organize our ideas into these two categories: Money Earned and Gifts. (Include the two categories in the graphic organizer.) Which ways of getting money are gifts? Which are ways that money is earned? Turn and talk.

S: The money I got for my birthday was a gift. → The money my uncle sent me for a holiday was also a gift. → I earned the money I got by walking a dog. → When I sold lemonade, I earned money.

T: (Sort the sticky notes.) Money that is earned is called **income**. (Add *or Income* to the graphic organizer, after *Money Earned,* as shown.)



Part 2: Define income as a means of obtaining goods and services.

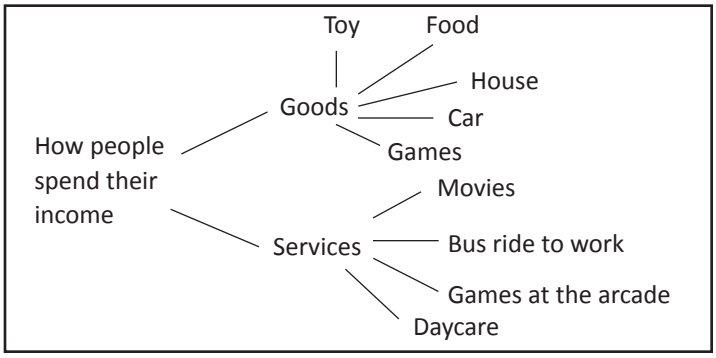
T: Let's take a closer look at money that is earned. It is also called income. People use income to buy goods and services. (Create a new graphic organizer and add these categories.)

T: What are *goods*? Goods are things you can touch and hold.

T: What type of goods might people buy with their income?

S: Clothing. → Toys. → Food. → A house. → A car. → Games. → Candy.

T: Note the goods students mention in the organizer.) Some people have a set income. This means they make a set amount of money each paycheck. They might not earn enough income to buy every good they want. Look at the goods we listed. Which goods do we need? (Circle responses that students share.)



S: Clothing. → Food. → A home.

T: People also use income to buy services. What is a service? Services are activities or jobs people do, like mowing a yard, or cutting your hair. You can't touch or hold a service.

T: What are some services people might buy?

S: A haircut. → Watching a movie. → A bus ride to work. → Playing games at the arcade. → Daycare.

T: (Record the services students share.) People might not earn enough income to buy every service they want. Look at the services we listed. Which service do we need? (Circle the responses students share.)

S: A bus ride to work. → Daycare.

T: Yes! When people buy goods and services, they sometimes must choose between the goods and services they want, and the goods and services they need.

Continue the class discussion, sorting the generated list.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

To promote free enterprise, consider inviting family-run, small businesses to the class to talk about private ownership and becoming an entrepreneur. For example, owners of a local farmers' market could share real-life examples of direct market competition, where growers sell their produce directly to consumers.

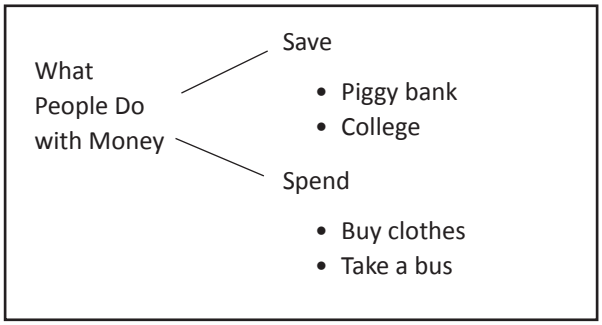
Part 3: Define *spending* and *saving*.

Note: In this activity, students generate a list of things people do with money. Then they sort the ideas into two categories: spending and saving. Write the student responses on sticky notes, so a graphic organizer as shown below can be developed. It may be necessary to prompt students so that they include ideas for both categories. Encourage students to listen with empathy as others share ideas about saving and spending.

T: What might people do with money they get as gifts or earn as income? Turn and talk.

S: They could put it in a piggy bank. → They could use it to buy treats. → They could put some money away for college. → They could buy food in the supermarket. → They could save it to buy something they want, like a bike. → My family keeps money at the bank. → They could buy clothes they need. → They could use it to pay for riding a bus. → My family pays someone to mow our yard.

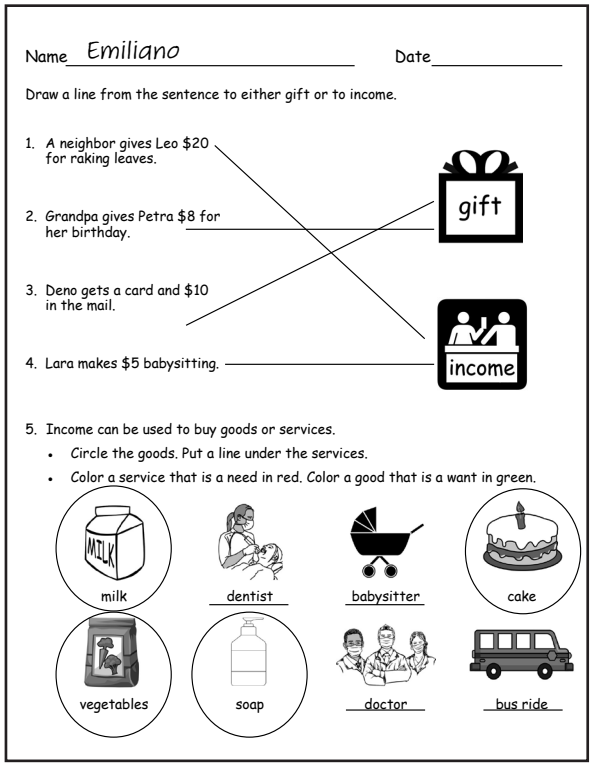
T: (From the student responses, make a list titled *What People Do with Money*.) I see two groups in our list. I am going to put a few things from our list into these two groups. See if you can figure out how I am sorting our list. (Write at least two items from the class list in each group.) I put buying clothes and paying to take a bus in one group. I put a piggy bank and college in the other group. What two groups am I making? Turn and talk.



S: One group is keeping the money. → One group is using the money to buy things. → One group is saving money, like putting it in a piggy bank. → The other group is spending money.

T: (Label the two categories *Spend* and *Save* on the graphic organizer.) Let's sort the other ways we use money into either Save or Spend.

T: (Complete the sorting with students, adding items as necessary.) People can save money for something they will buy soon, like a book, or something far in the future, like college. People can also save money for things they need that they might not even know about yet. For example, some people save money in case they need to pay to fix something that breaks, or buy something that gets lost.


Name Emiliano Date

Draw a line from the sentence to either gift or to income.

1. A neighbor gives Leo $20 for raking leaves.
2. Grandpa gives Petra $8 for her birthday.
3. Deno gets a card and $10 in the mail.
4. Lara makes $5 babysitting.

gift

income

5. Income can be used to buy goods or services.
   - Circle the goods. Put a line under the services.
   - Color a service that is a need in red. Color a good that is a want in green.

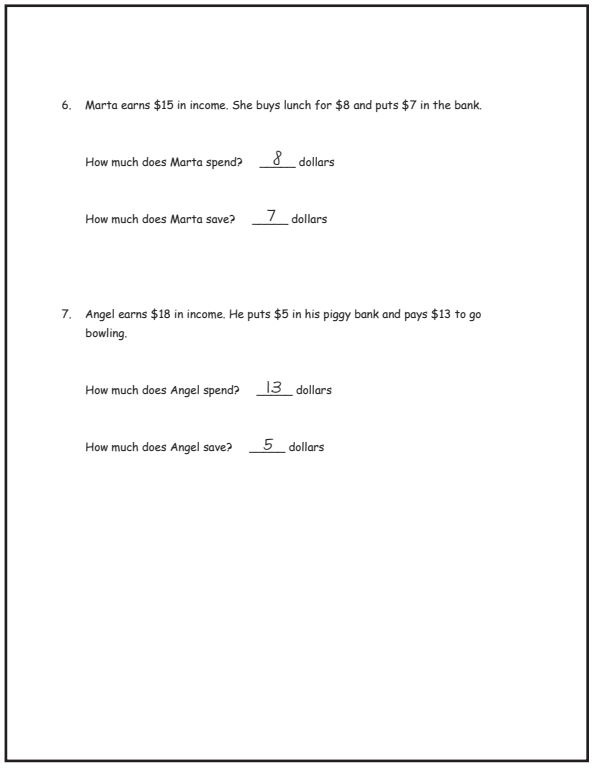
milk dentist babysitter cake

vegetables soap doctor bus ride

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)



6. Marta earns $15 in income. She buys lunch for $8 and puts $7 in the bank.

How much does Marta spend? 8 dollars

How much does Marta save? 7 dollars

7. Angel earns $18 in income. He puts $5 in his piggy bank and pays $13 to go bowling.

How much does Angel spend? 13 dollars

How much does Angel save? 5 dollars

Lesson Objective: Understand spending and saving income.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Think back to the groups we made for how people get money. In what two ways do people get money?
- How are gifts of money and income alike? How are they different?
- What is income?
- Look at Problems 1–4. How did you know which were gifts and which were income?
- Look at Problem 5. How did you know which pictures were goods?
- Look at Problem 5. How did you know which pictures were services?
- If you had a set income, which of these goods would you be sure to buy: fruit, vegetables, candy, shoes, ice cream? Which goods would you skip buying?
- If you had a set income, which of these services would you be sure to buy: going to a doctor appointment, playing at an arcade, seeing a movie, getting access to a phone and the internet? Which services would you skip buying?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name_____ Date_____

Draw a line from the sentence to either gift or to income.

1. A neighbor gives Leo $20 for raking leaves.
2. Grandpa gives Petra $8 for her birthday.
3. Deno gets a card and $10 in the mail.
4. Lara makes $5 babysitting.

5. Income can be used to buy goods or services.
   - Circle the goods. Put a line under the services.
   - Color a service that is a need in red. Color a good that is a want in green.

milk

dentist

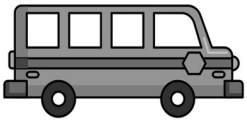
babysitter

cake

vegetables

soap

doctor



bus ride

6. Marta earns $15 in income. She buys lunch for $8 and puts $7 in the bank.

   How much does Marta spend? _____ dollars

   How much does Marta save? _____ dollars

7. Angel earns $18 in income. He puts $5 in his piggy bank and pays $13 to go bowling.

   How much does Angel spend? _____ dollars

   How much does Angel save? _____ dollars

Name _____ Date _____

Circle Save or Spend.

1. Jon puts 2 dollars in his piggy bank. Save Spend

2. Jon buys a book. Save Spend

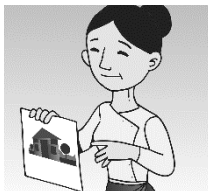
3. Jon gives his sister 5 dollars. Save Spend

4. Circle one way a person might earn income.

eat

sleep

play


teach

5. It's payday and you earn $12 in income. Draw a picture of a **good** you might buy.

6. Next payday, you earn $20 in income. Draw a picture of a **service** you might buy.

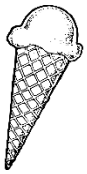
Name_____ Date_____

Circle **gift** or **income**.

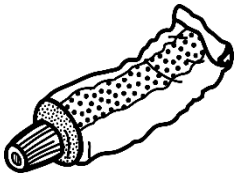
1. Nolan makes $8 walking the neighbor's dog. gift income

2. Maria gives her brother $10 to celebrate the end of the school year. gift income

3. Sometimes, we must use income to buy goods we **need** instead of goods we **want**. Circle the goods we need.

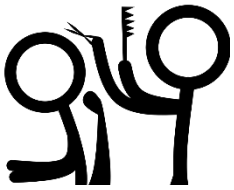

ice cream

vegetables

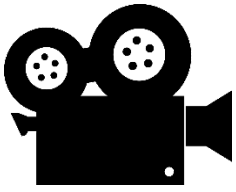

toothpaste

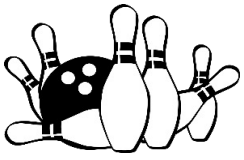
video game

4. Sometimes, we must use income to buy services we **need** instead of services we **want**. Circle the services we need.


haircut

dentist


movie

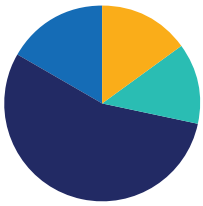

bowling

Lesson 26

Objective: Understand the difference between wants and needs.

Suggested Lesson Structure

Fluency Practice	(9 minutes)
Application Problem	(8 minutes)
Concept Development	(33 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (9 minutes)

- Counting Coins **1.5B, 1.4C** (5 minutes)
- Rekenrek: Counting Cents **1.4A, 1.4B** (4 minutes)

Counting Coins (5 minutes)

Materials: (T) Collection of 120 pennies, 24 nickels, and 12 dimes (plastic or real)

Note: This activity helps students maintain their ability to count by twos, fives, and tens.

Count pennies by twos, up to 120 cents. Then count nickels by fives and dimes by tens, up to 120 cents.

Rekenrek: Counting Cents (4 minutes)

Materials: (T) Rekenrek

Note: This activity helps students review the value of coins.

Use the Rekenrek to count by cents, or ones, to 25. The counting should stop at multiples of 5 and 10 so that students can identify the values in units of nickels or dimes. When students reach 25, have them identify the coin that has a value of 25 cents.

Application Problem (8 minutes)

Beth has 1 quarter, 1 dime, 3 nickels, and 2 pennies. Maggie has 3 dimes, 1 nickel, and 2 pennies. How much money does each girl have?

Note: This Application Problem reviews values of coins and skip counting by fives and tens.

Beth $25 \xrightarrow{+10} 35 \xrightarrow{+5} 40 \xrightarrow{+5} 45 \xrightarrow{+5} 50 \xrightarrow{+1} 51 \xrightarrow{+1} 52$

Maggie $10 \xrightarrow{+10} 20 \xrightarrow{+10} 30 \xrightarrow{+5} 35 \xrightarrow{+1} 36 \xrightarrow{+1} 37$

Beth has 52¢. Maggie has 37¢.

Concept Development (33 minutes)

Materials: (T) Lesson 26 Template (cut into cards), graphic organizer from Lesson 25 (S) Lesson 26 Template (1 for each pair of students, cut into cards), personal white board

Note: The collection of items that students will categorize as either a want or need has some purposefully ambiguous items. For example, a bike can be categorized as a want if it is used for recreation. A bike could be categorized as a need if it provides necessary transportation. This ambiguity will enhance the discussion. The purpose of the discussion is to help students understand that wants and needs vary by family and circumstance.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Students, including some emergent bilingual students, will benefit from the use of a graphic organizer as shown in this lesson. Consider including simple pictures under the words to help students understand their meanings. For example, a picture of money in a piggy bank with an arrow pointing in could help students understand *save* in this context. The picture under *spend* could show money in a wallet with an arrow pointing out. The picture under *wants* could be a ball or other toy, and the picture under *needs* could be a sandwich.

Part 1: Define wants and needs.

T: (Refer to the graphic organizer from the previous lesson.) Look back at the graphic organizer from our last lesson. What do families do with income and gifts?

S: They can spend it or save it.

T: Let's make a list of things people might spend money on.

S: People buy clothes. → People buy food. → We can buy toys. → My family bought a new car. → Someone could spend money on renting their apartment. → I like to spend my money on candy and games. → People could spend money on a cell phone. → My mom pays money to have her nails done.

T: (Record student responses. The discussion will vary from class to class.) How are these things the same and different?

S: Food and clothing are things we buy because they are necessary. → Toys and candy are things we buy because we enjoy them. → We like to buy toys and candy, but we don't have to have them. → We must have food and clothing.

T: Things such as food and clothing that we use to be stay alive or be healthy are **needs**. Things that we like to have but don't need to stay alive or healthy are **wants**. Let's add these words to our graphic organizer. (List as shown in part 2.)

Part 2: Sort wants and needs.

Note: Students will work together to sort the pictures shown on the cards into two categories: wants and needs. Since the pictures can be interpreted in different ways, review what each picture represents before students sort the cards. After the sort, follow with a class discussion. Items that could be considered either a want or a need can be sorted into either category.

T: (Distribute cards to each pair of students.) Partner A, write *wants* on your personal white board. Partner B, write *needs* on your personal white board.

S: (Write *wants* and *needs* on white boards.)

T: Work with your partner to sort the cards. If the card shows something people use to stay alive or be healthy, put the card in the *needs* category. If the card shows something that people like but don't need, put the card in the *wants* category.

S: (Sort.)

T: (Display the picture of the house.) Is a place to live a want or a need? Explain your thinking.

S: It's a need. → People need a place to live. → People need to be dry when it rains. → People need to have a place to sleep.

T: (Display the picture of the candy bar.) Is candy a want or a need? Explain your thinking.

S: It's a want. → We don't have to have candy to live.

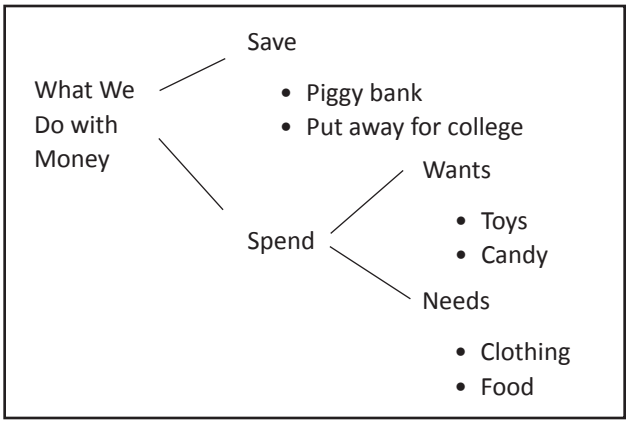
T: (Display the image of the eyeglasses.) Are eyeglasses a want or a need? Explain your thinking.

S: A need. → Some people need eyeglasses to see.

T: (Display the image of the sunglasses.) Are sunglasses a need or a want? Explain your thinking.

S: A want. → I like wearing my sunglasses, but I don't need them to see. → My mom needs sunglasses to drive when it's sunny. If she doesn't have them, she can't see well.

T: Depending on the situation, sunglasses can be either a need or a want. They could be something we need to protect our eyes from the sun. They could be something we want if we wear them to look nice.



NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Support conversations that allow for differing perspectives or multiple correct answers by modeling appropriate ways to disagree. For example,

"I see why you think sunglasses are a need. I think they are a want because I don't use them for a job."

Provide students with an opportunity to practice the language in the conversation.

Although sunglasses could go in either category, let's put them in the *wants* category. (Display the picture of the bike.) How is the bike similar to the sunglasses? Explain your thinking.

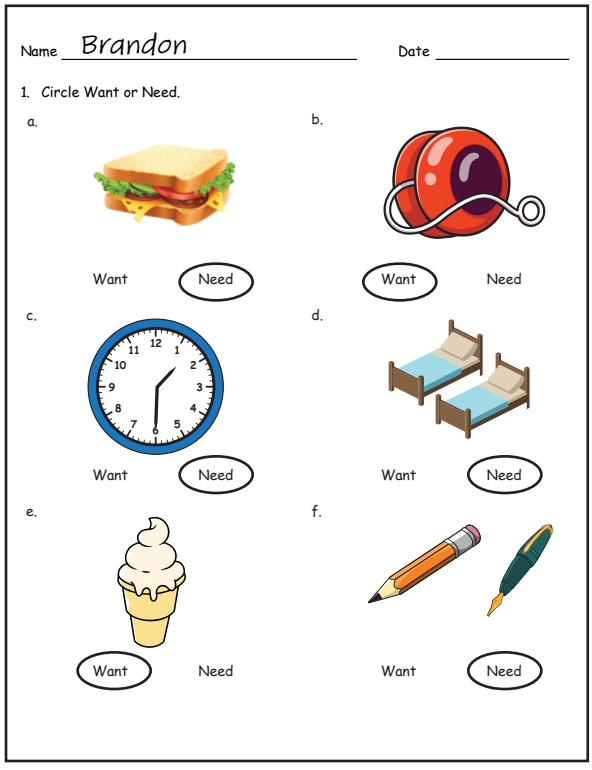
S: It can be either a want or a need. → If I ride a bike for fun, the bike is a want. → If my dad rides his bike to get to work, the bike is a need.

T: A bike can be either a need or a want, depending on what it's used for. That's similar to the sunglasses. How the bike is used tells us if it's a want or a need. You can put the bike in either category.

Continue to encourage students to listen with empathy to all thinking about why an item is a want or a need.

T: No family has an unlimited amount of money to spend. When families use their money to buy certain things, they don't have that money to buy other things. What should a family buy first, needs or wants?

S: Needs should come first.→ They should buy their needs before they decide which wants to buy.


Name Brandon Date

1. Circle Want or Need.

a. Want Need

b. Want Need

c. Want Need

d. Want Need

e. Want Need

f. Want Need

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Understand the difference between wants and needs.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

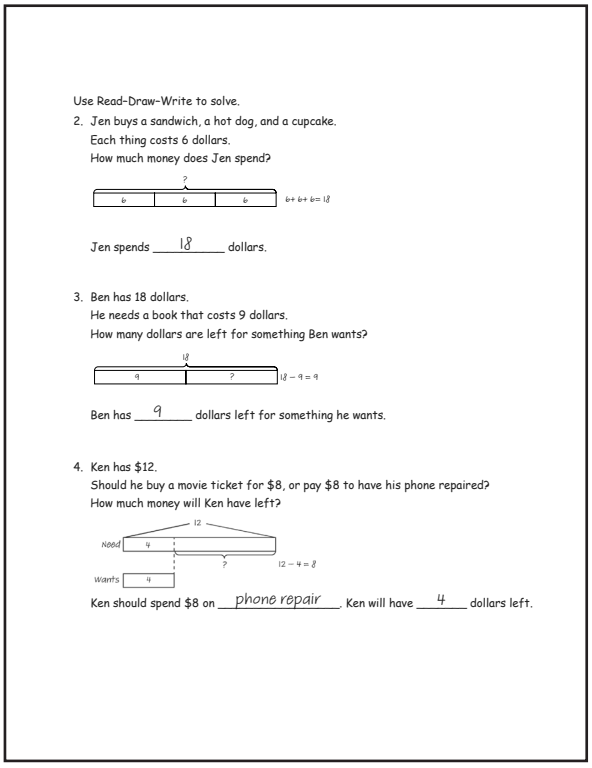
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the following questions may be used to lead the discussion:

- I see that some of you think the clock is a want and some of you think the clock is a need. Please explain your choice.
- In Problem 7, which things were needs and which things were wants? If Jen didn't have enough money to buy all three things, which thing should she not buy?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Use Read-Draw-Write to solve.

2. Jen buys a sandwich, a hot dog, and a cupcake.
   Each thing costs 6 dollars.
   How much money does Jen spend?

Jen spends 18 dollars.

3. Ben has 18 dollars.
   He needs a book that costs 9 dollars.
   How many dollars are left for something Ben wants?

Ben has 9 dollars left for something he wants.

4. Ken has $12.
   Should he buy a movie ticket for $8, or pay $8 to have his phone repaired?
   How much money will Ken have left?

Ken should spend $8 on phone repair. Ken will have 4 dollars left.

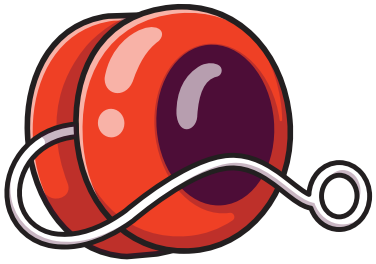
Name _____ Date _____

1. Circle Want or Need.

a.

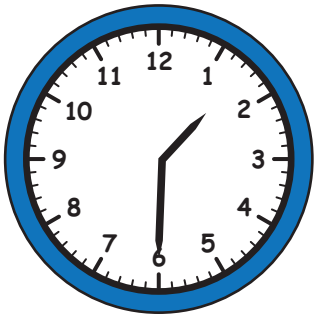
Want Need

b.



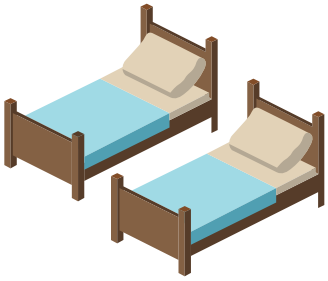
Want Need

c.



Want Need

d.

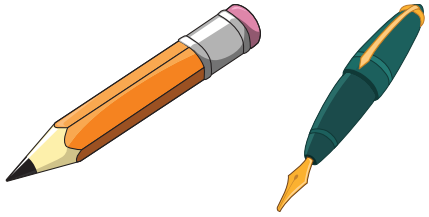


Want Need

e.

Want Need

f.



Want Need

Use Read-Draw-Write to solve.

2. Jen buys a sandwich, a hot dog, and a cupcake.
   Each thing costs 6 dollars.
   How much money does Jen spend?

   Jen spends _____ dollars.

3. Ben has 18 dollars.
   He needs a book that costs 9 dollars.
   How many dollars are left for something Ben wants?

   Ben has _____ dollars left for something he wants.

4. Ken has $12.
   Should he buy a movie ticket for $8, or pay $8 to have his phone repaired?
   How much money will Ken have left?

   Ken should spend $8 on _____. Ken will have _____ dollars left.

Name_____ Date_____

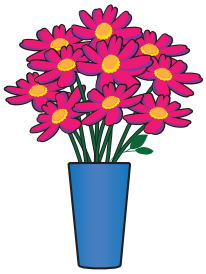
1. Circle the picture of something that people need.

2. Circle the picture of something that people do not need but may want.

Name _____ Date _____

1. Circle Want or Need.

a.



Want Need

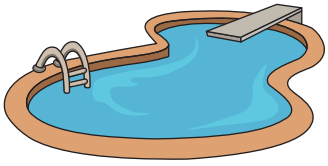
b.

Want Need

c.

Want Need

d.



Want Need

e.

Want Need

f.

Want Need

Use Read-Draw-Write to solve.

2. Denny buys a salad, a juice, and a muffin.
   Each thing costs 5 dollars.
   How much do all three things cost?

   All three things cost _____ dollars.

3. Lenny has some money. He buys a book for 12 dollars.
   He gives 3 dollars to the pet shelter.
   How many dollars did Lenny have to start?

   Lenny had _____ dollars to start.

Name _____ Date _____

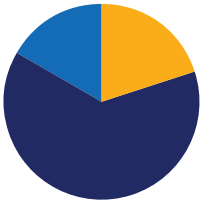
wants and needs cards

Lesson 27

Objective: Consider charitable giving as an option for spending money.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Concept Development	(38 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (12 minutes)

- Counting Mixed Coins **1.5B, 1.4C** (4 minutes)
- Rekenrek: Counting Cents **1.4C** (4 minutes)
- What's My Number? **1.2A** (4 minutes)

Counting Mixed Coins (4 minutes)

Materials: (T) 120 pennies, 24 nickels, 12 dimes (real or plastic)

Note: This activity helps students maintain their ability to count by fives and tens.

T: (Display rows of 4 dimes, 5 nickels, and 4 pennies.) We are going to count the value of this set of coins. Count aloud as I touch each coin. (Count the dimes, touching each coin as it is counted.)
S: 10, 20, 30, 40.
T: (Point to the row of nickels.) We counted to 40. Let's keep counting.
S: 45, 50, 55, 60, 65.
T: (Point to the row of pennies.) We counted to 65. Let's keep counting.
S: 66, 67, 68, 69.
T: What is the value of the coins we counted?
S: 69 cents.
T: Make the cent sign in the air.
S: (Draw.)

Continue this activity with other sets of coins, counting up to 120 cents.

Rekenrek: Counting Cents (4 minutes)

Materials: (T) Rekenrek

Note: This activity helps students review the value of coins.

Use the Rekenrek to count by cents to 25. In this activity each bead represents one cent. The counting should stop at multiples of 5 and 10 so that students can identify the values in units of nickels or dimes. When students reach 25, have them identify the coin that has a value of 25 cents.

What's My Number? (4 minutes)

Materials: (T/S) Personal white board

Note: In this activity, students are composing and decomposing 2-digit and 3-digit numbers.

T: My number has 2 tens and 3 ones. What is my number?
S: 23.
T: (Write 23 on your personal white board.) What is the value of the 2?
S: 2 tens.
T: Say it the regular way.
S: Twenty.
T: What is the value of the 3?
S: 3 ones.
T: Say it the regular way.
S: 3.

Repeat with the following possible sequence: 56, 79, 89, 99, 112, 115.

Concept Development (38 minutes)

Part 1: Define charity and giving.

T: I am going to list some activities that people do. Think about what all of these activities have in common.
T: Some people help at a pet shelter. (Write *help pets* on the board.) Some people give money to the library to help buy books. (Write *give money for books*.) Some people bake cakes for a bake sale to help raise money for a club. (Write *bake cakes*.) Some people clean up parks. (Write *clean parks*.) Some people donate food to the food bank. What do all of these activities have in common?
S: All the activities help others.
T: Yes, the people are **giving** something to help others. Giving means letting someone else have something that is yours. When we give to others who need help, it is called **charity**.
T: Look at the list on the board. Sometimes people give money to charity. Which example in the list shows people giving money?

S: Money for books.

T: Sometimes people give goods to charity. Which example in the list shows people giving goods?

S: Baking cakes for a bake sale. → Donating food to the food bank.

T: Sometimes people give their time. They spend time doing a service to help others. Which examples in the list show people doing a service?

S: Helping at the pet shelter. → Cleaning the park.

T: Why do you think people give to charity?

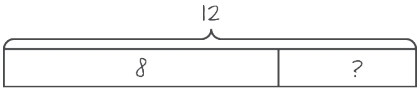
S: They give to help other people. → They want to help animals. → They want to take care of the environment.

T: People also feel good after giving or helping.

Part 2: Use financial literacy vocabulary in word problems.

Use Read-Draw-Write to solve the following story problems. Make sure *charity and giving* are used in context.

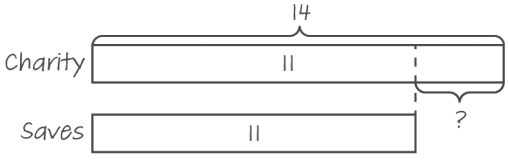
Ben earns 12 dollars by weeding a garden. He spends 8 dollars on a used video game. He gives the rest of his money to an animal shelter. How much money does Ben give to charity?



$12 - 8 = 4$

Ben gives 4 dollars to charity.

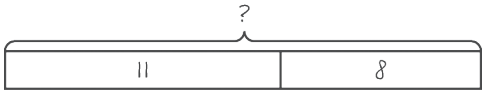
Jen gives 14 dollars to the food bank. She saves 11 dollars. How many dollars more does Jen give to chartity than she saves?



$14 - 11 = 3$

Jen gives 3 dollars more to charity than she saves.

Tom earned some money feeding the neighbor's pets. He spent 11 dollars on clothes. He gave 8 dollars to charity. How much money did Tom earn?



Tom earned 19 dollars.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

To support students, including some emergent bilingual students, with new vocabulary, consider using the graphic organizers from the last lessons. Point to the appropriate section in the graphic organizer as you provide examples of people giving to others.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

Consider providing the problems on chart paper for students to work in small groups to solve. This will provide students with an opportunity to practice the new vocabulary in the lesson and to share varied problem solving strategies.

Problem Set (15 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems by using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Consider charitable giving as an option for spending money.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

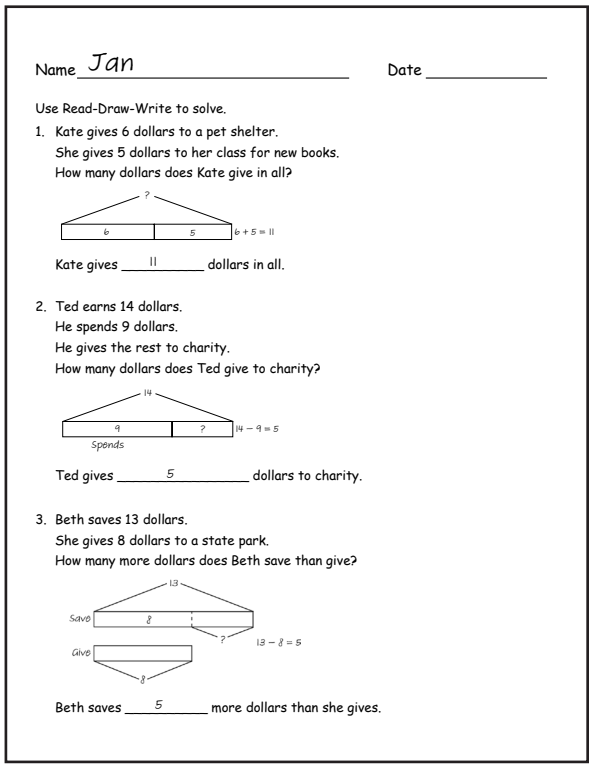
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Student Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at our graphic organizer from yesterday's lesson. Where on this organizer could we include charitable giving?
- What are some of the ways we can give to charity?
- We can give goods or services to charity. What is an example of giving goods to a charity? What is an example of giving service to a charity?

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Jan Date _____

Use Read-Draw-Write to solve.

1. Kate gives 6 dollars to a pet shelter.
   She gives 5 dollars to her class for new books.
   How many dollars does Kate give in all?

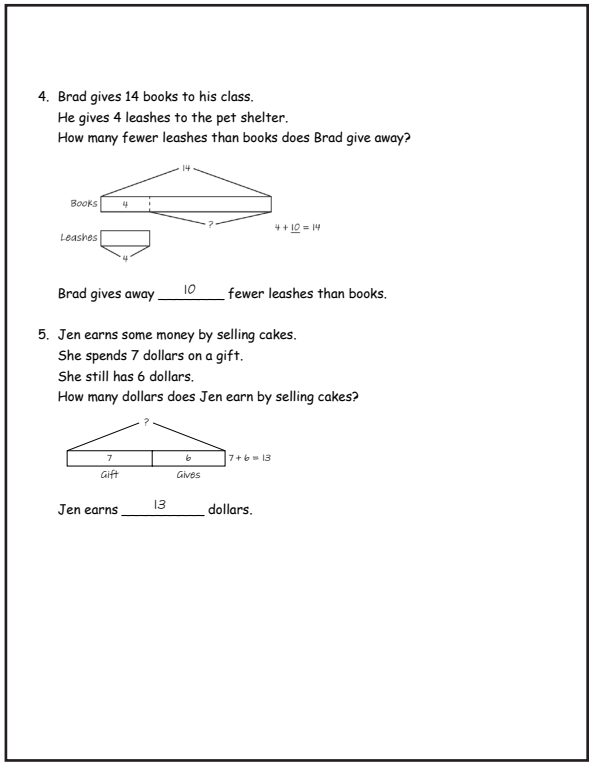
Kate gives 11 dollars in all.

2. Ted earns 14 dollars.
   He spends 9 dollars.
   He gives the rest to charity.
   How many dollars does Ted give to charity?

Ted gives 5 dollars to charity.

3. Beth saves 13 dollars.
   She gives 8 dollars to a state park.
   How many more dollars does Beth save than give?

Beth saves 5 more dollars than she gives.



4. Brad gives 14 books to his class.
   He gives 4 leashes to the pet shelter.
   How many fewer leashes than books does Brad give away?

Brad gives away 10 fewer leashes than books.

5. Jen earns some money by selling cakes.
   She spends 7 dollars on a gift.
   She still has 6 dollars.
   How many dollars does Jen earn by selling cakes?

Jen earns 13 dollars.

Name _____ Date _____

Use Read-Draw-Write to solve.

1. Kate gives 6 dollars to a pet shelter.
   She gives 5 dollars to her class for new books.
   How many dollars does Kate give in all?

   Kate gives _____ dollars in all.

2. Ted earns 14 dollars.
   He spends 9 dollars.
   He gives the rest to charity.
   How many dollars does Ted give to charity?

   Ted gives _____ dollars to charity.

3. Beth saves 13 dollars.
   She gives 8 dollars to a state park.
   How many more dollars does Beth save than give?

   Beth saves _____ more dollars than she gives.

4. Brad gives 14 books to his class.
   He gives 4 leashes to the pet shelter.
   How many fewer leashes than books does Brad give away?

   Brad gives away _____ fewer leashes than books.

5. Jen earns some money by selling cakes.
   She spends 7 dollars on a gift.
   She still has 6 dollars.
   How many dollars does Jen earn by selling cakes?

   Jen earns _____ dollars.

Name_____ Date_____

Use Read-Draw-Write to solve.

Aria earned 15 dollars.

She saves 7 dollars.

She gives the rest to the library to help buy books.

How many dollars does Aria give to the library?

Aria gives _____ dollars to the library.

Name_____ Date_____

Use Read-Draw-Write to solve.

1. Kim gives 4 dollars to her class for new books.
   She gives 5 dollars to an art club.
   How many dollars does Kim give in all?

   Kim gives _____ dollars in all.

2. Tom has 15 dollars.
   He spends 8 dollars.
   He gives the rest to charity.
   How many dollars does Tom give to charity?

   Tom gives _____ dollars to charity.

3. Kit gives 12 dollars to a pet shelter.
   She spends 7 dollars.
   How many more dollars does Kit give than spend?

   Kit gives _____ more dollars than she spends.

4. Jim gives 11 games to his class.
   He gives 6 backpacks to kids.
   How many fewer backpacks than games does Jim give?

   Jim gives _____ fewer backpacks than games.

5. Meg earns some money by selling snacks.
   She saves 9 dollars.
   She still has 7 dollars.
   How many dollars does Meg earns by selling snacks?

   Meg earns _____dollars.

Topic E

Varied Problem Types Within 20

1.3B, 1.5D

Focus Standards:		1.3B	Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] − 3.
		1.5D	Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.
Instructional Days:		1	
Coherence	**-Links from:**	G1–M3	Ordering and Comparing Length Measurements as Numbers
		G1–M4	Place Value, Comparison, Addition and Subtraction to 40
	-Links to:	G2–M7	Problem Solving with Length, Money, and Data

Topic E provides students the opportunity to focus on solving various problem types and to learn from their peers' strategies.

Lessons 28 and 29 focus on challenging Grade 1 problem types: *compare with bigger unknown* and *compare with smaller unknown* (**1.3B, 1.5D**). Students continue to strengthen their ability to recognize *compare* problem types and solve for unknowns in varied positions. They also work with problem types that suggest the incorrect operation, such as, "Shanika went down the slide 15 times. She went down 3 more times than Fran. How many times did Fran go down the slide?" While students do not need to demonstrate proficiency with this problem type in Grade 1, exposure to these problems can support students' long-term success. During Lesson 29, students are provided more time to practice the various problem types and to learn to persevere in problem solving.

In Lesson 30, students practice all of the problem types they have encountered throughout the year. They discuss their methods for solving the problems and explain their work, including answering such questions as, "How does Student A's work help them solve the problem? How does Student B's work help them solve the problem? What compliment can we give Student A? What might Student A do to improve their work? What do you notice about your own work after looking at Student A's and Student B's work?"

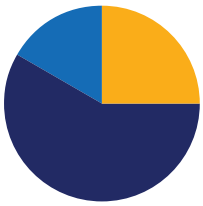
A Teaching Sequence Toward Proficiency in Varied Problem Types Within 20	
Objective 1:	**Solve *compare with bigger or smaller unknown* problem types. (Lessons 28–29)**
Objective 2:	**Share and critique strategies for solving problems of varied types. (Lesson 30)**

Lesson 28

Objective: Solve *compare with bigger or smaller unknown* problem types.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Grade 1 Fluency Sprint **1.3D** (10 minutes)
- Standards Check: Add and Subtract Tens **1.3A, 1.5C** (5 minutes)

Grade 1 Fluency Sprint (10 minutes)

Materials: (S) Fluency Sprint (Lesson 3)

Note: Based on the needs of the class, select a Sprint. There are two options available.

1. Administer a Sprint the class has not yet completed.
2. Differentiate. Administer two different Sprints. Simply have one group do a counting activity on the back of the Sprint while the other Sprint is corrected.

Standards Check: Add and Subtract Tens (5 minutes)

Materials: (S) Personal white board

Note: This fluency activity monitors students' ability to add and subtract tens. All students must be able to find ten more or less than a number mentally.

T: What's ten more than 25?
S: 35.
T: Write the number sentence.
S: (Write 25 + 10 = 35.)
T: What's ten less than 25?
S: 15.
T: Write the number sentence.
S: (Write 25 – 10 = 15.)

T: Prove it. Draw quick tens and ones.

S: (Draw.)

Repeat with the suggested problem types. Alternate directing students to prove it with a number sentence, a number bond, or quick tens and ones. Include opportunities for students to prove a subtraction problem with an addition sentence (e.g., prove 10 less than 60 is 50 by writing 50 + 10 = 60).

- Mentally calculate 10 more/less than any two-digit number.
- Add and subtract multiples of 10 from multiples of 10 (e.g., 90 – 20; 40 + 50).
- Calculate multiples of 10 more than any two-digit number (e.g., 37 + 40).

Concept Development (35 minutes)

Materials: (T) Chart paper (S) Personal white board

Note: As students approach each problem, give them the opportunity to persevere and make sense of the problem on their own before intervening. When support is necessary, encourage the student to slow down and read each sentence carefully. During the Student Debrief, recognize students who have been successful at persevering.

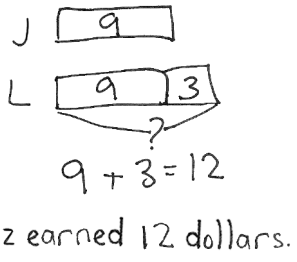
Students sit in the meeting area or at their tables with their personal white boards.

Problems 1 and 2: *Compare with bigger or smaller unknown* problem types with *more* or *fewer* suggesting the correct operation.

T: Let's read our story together.

T/S: John earned 9 dollars by raking leaves. Liz earned 3 dollars more by walking her neighbor's dog. How much money did Liz earn?

T: On your personal white board, draw and then write a number sentence to match the story. (Circulate and observe students' solutions.)



S: (Draw and solve.)

T: (Choose a student who made a double strip diagram.) Tell us how you drew your strip diagram.

S: First, I made John's and Liz's strips to be equal, but I know that's not true. Liz earned 3 more dollars. So I drew a *more* strip next Liz's strip and wrote a 3 in it. Then I put 9 in John's strip. I know Liz's first strip is 9 because it is the same size as John's strip. Liz's strip is now 9 and 3. That's 12 dollars.

T: Excellent! What number sentence did we use to match the story?

S: 9 + 3 = 12.

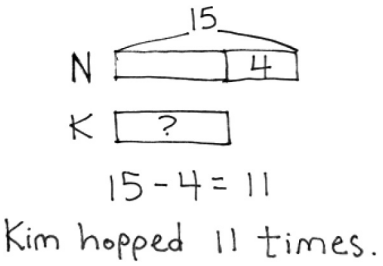
T: What does the nine describe in the story and in our model? (Point.)

S: The number of dollars earned by John.

T: The three? (Point.)

S: The extra dollars earned by Liz. → The 3 more dollars of Liz.

T: The 12? (Point.)
S: How many dollars Liz earned.
T: Give me a statement answering the question.
S: Liz earned 12 dollars.

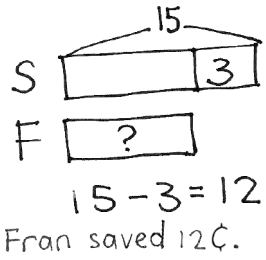


Repeat the process using the problem given below:

Nikil hopped on one leg 15 times in a row. Kim hopped 4 fewer times. How many times did Kim hop on one leg?

Problem 3: *Compare with smaller unknown* problem type with *more* suggesting the incorrect operation.

T: Let's read our next story problem together.
T/S: Shanika saved 15¢. She saved 3 cents more than Fran. How much money did Fran save?
T: Let's draw a double strip diagram since we need to find out how much money Fran saved.
T: (Write S and F, and draw same-size strips as shown to the right.) What do we need to ask ourselves first?
S: Who has more?
T: Yes! Read the story again carefully. (Wait.) Who has more? Who saved more money?
S: Shanika!
T: (Draw a *more* strip next to Shanika's first strip.) How much more?
S: 3 more cents!
T: (Write 3 in the *more* strip.) Let's go back to the story and read the first sentence.
T/S: Shanika saved 15¢.
T: Where should we put the 15? Turn and talk to your partner.
S: We can put it in the first part of Shanika's strip.
T: Who agrees? Who disagrees? (Choose a student who disagrees.) Tell us why. (Demonstrate as the student explains.)
S: If we put 15 in the first part of her strip, then it will show that Shanika saved 18¢ because her strip will show 15 and 3.
T: You're correct. That does not match the first sentence of our story problem, so where would we write 15?
S: Draw the arms to include both parts of Shanika's strip. The whole strip is 15.
T: (Demonstrate.) Yes! That makes sense! Let's read the second sentence.
T/S: She saved 3 cents more than Fran.
T: Did we take care of that in our drawing? How?
S: Yes! We added a *more* strip for Shanika and wrote 3 inside.
T: Let's read the last sentence.
T/S: How much money did Fran save?



T: Fran's strip gets the question mark since that's the unknown. Turn and talk to your partner about how you can solve Fran's amount.

S: We know that the first part of Shanika's strip is equal to Fran's strip, so we can just figure out Shanika's first part. → We know the total is 15, and one part is 3. 15 – 3 gives us the other part. It's 12. → Shanika's first part is 12, so Fran's strip must be 12, too!

T: So, how much money did Fran save?

S: 12 cents!

T: Take a moment to match the story to the model with your partner.

T: (Allow students sharing time.) What number sentence can we use to match this problem?

S: 15 – 3 = 12.

T: Tell your partner what each number in the sentence is telling about in the story, and then tell a statement that answers the question.

S: (Discuss referents.) Fran saved 12 cents.

Repeat the process using the problem below:

Martha picked up 15 rocks on the beach. She picked up 8 more than Peter. How many rocks did Peter pick up at the beach?

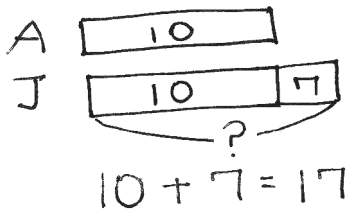
Problem 4: *Compare with bigger unknown* problem type with *fewer* suggesting the incorrect operation.

T: Let's read the next story.

T/S: Anton caught 10 fireflies. He caught 7 fewer fireflies than Julio. How many fireflies did Julio catch?

T: Set up your strip diagram so it shows who the characters are. Make your strips so they start out having the same amount.

S: (Draw two same-size strips with labels A and J as shown to the right.)



T: I love how you made each boy have equal-size strips. But is this true?

S: No!

T: We have to ask…?

S: Who has more!

T: Okay! Read carefully and find out who has more. Then, add the *more* strip in your drawing.

S: (Develop the strip diagram as the teacher circulates and gives support.)

T: (Select a student who showed 7 more for Julio.)

S: I know that Julio has 7 more because the story said Anton caught 7 *fewer* fireflies, so I gave Julio the *more* strip and wrote 7 inside.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

To support students with problem solving consider using either smaller numbers or encouraging students to include circle representations for the objects and then drawing rectangles around the circles to create the strip diagrams.

T: Excellent. Now that we have our strip diagram all set up, let's read the first sentence.

T/S: Anton caught 10 fireflies.

T: Decide where this information will go in your strip diagram.

S: (Write 10 in Anton's strip.)

T: Read the next sentence.

S: He caught 7 *fewer* fireflies than Julio.

T: Check your strip diagram. Did we include this information correctly?

S: Yes!

T: Explain to your partner how you showed this in your strip diagram.

S: Anton caught 7 fewer fireflies, so that means Julio caught 7 more. We added the *more* strip to Julio's first strip.

T: How many fireflies did Julio catch? Where does the question mark for the unknown go?

S: Under all of Julio's strip! → Draw arms to include both parts.

T: How many fireflies did Julio catch? Go ahead and solve. Turn and talk to your partner about how you got your answer.

S: (Solve and discuss.)

T: How did you find your answer?

S: I know that Julio's first part is the same as Anton's strip. That's 10. Julio had 7 more. So, 10 + 7 = 17. Julio caught 17 fireflies!

T: Excellent work. I'm especially proud of how carefully you read to find out who had more in every story.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Some students, including some emergent bilingual students, may find it helpful to use linking cubes to represent the problems. Students can use different color linking cubes for each part being represented and then draw the strip diagrams to match their concrete representations.

Repeat the process using the following:

Darnel has 13 baseball cards. He has 4 fewer than Willie. How many baseball cards does Willie have?

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

Lesson Objective: Solve *compare with bigger or smaller unknown* problem types.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

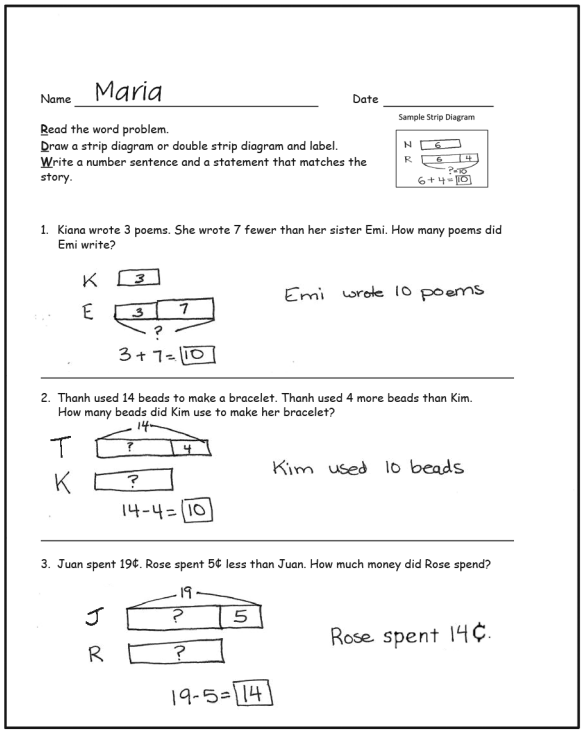
Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- How was setting up your strip diagram for Problem 4 different from Problem 5?
- Why is it simpler to use a double strip diagram when we are comparing amounts?
- Why is it important to read every part of the story problem carefully? Give an example using your Problem Set or from today's lesson.
- Sometimes going slower when we do math means we are getting smarter. Find an example from your work today when you slowed down to get a problem correct.

Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.



Name Maria Date

Sample Strip Diagram

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Kiana wrote 3 poems. She wrote 7 fewer than her sister Emi. How many poems did Emi write?

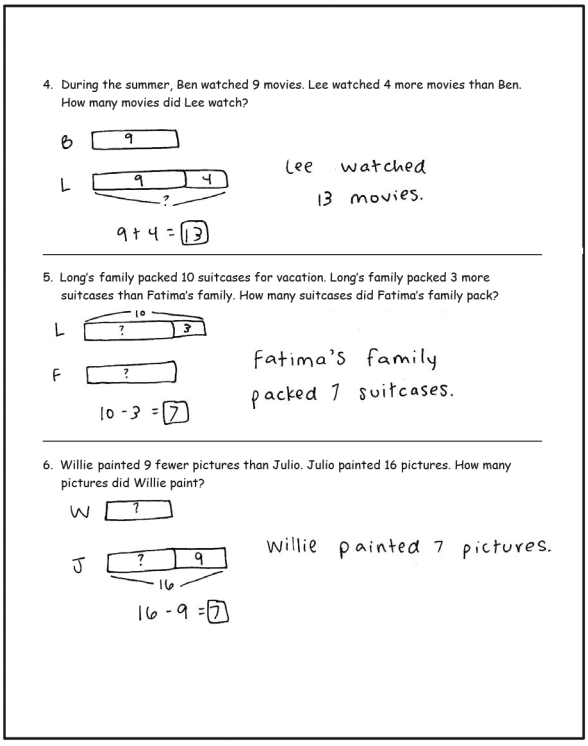
K 3
E 3 7 ?
3 + 7 = 10
Emi wrote 10 poems

2. Thanh used 14 beads to make a bracelet. Thanh used 4 more beads than Kim. How many beads did Kim use to make her bracelet?

T 14 ? 4
K ?
14 - 4 = 10
Kim used 10 beads

3. Juan spent 19¢. Rose spent 5¢ less than Juan. How much money did Rose spend?

J 19 ? 5
R ?
19 - 5 = 14
Rose spent 14¢.



4. During the summer, Ben watched 9 movies. Lee watched 4 more movies than Ben. How many movies did Lee watch?

B 9
L 9 4 ?
9 + 4 = 13
Lee watched 13 movies.

5. Long's family packed 10 suitcases for vacation. Long's family packed 3 more suitcases than Fatima's family. How many suitcases did Fatima's family pack?

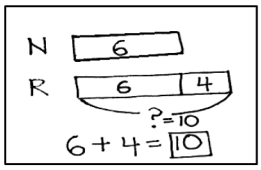
L 10 ? 3
F ?
10 - 3 = 7
Fatima's family packed 7 suitcases.

6. Willie painted 9 fewer pictures than Julio. Julio painted 16 pictures. How many pictures did Willie paint?

W ?
J ? 9 16
16 - 9 = 7
Willie painted 7 pictures.

Name _____ Date _____

Sample Strip Diagram



Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Kiana wrote 3 poems. She wrote 7 fewer than her sister Emi. How many poems did Emi write?

2. Thanh used 14 beads to make a bracelet. Thanh used 4 more beads than Kim. How many beads did Kim use to make her bracelet?

3. Juan spent 19¢. Rose spent 5¢ less than Juan. How much money did Rose spend?

4. During the summer, Ben watched 9 movies. Lee watched 4 more movies than Ben. How many movies did Lee watch?

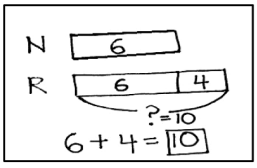
5. Long's family packed 10 suitcases for vacation. Long's family packed 3 more suitcases than Fatima's family. How many suitcases did Fatima's family pack?

6. Willie painted 9 fewer pictures than Julio. Julio painted 16 pictures. How many pictures did Willie paint?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

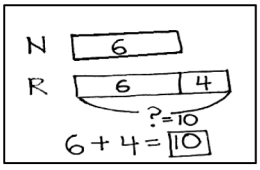
Sample Strip Diagram



Gabriel splashed in 7 more puddles after the rainstorm than Julio. Gabriel splashed in 11 puddles. How many puddles did Julio splash in after the rainstorm?

Name _____ Date _____

Sample Strip Diagram



Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Julio listened to 7 songs on the radio. Emiliano listened to 3 more songs than Julio. How many songs did Emiliano listen to?

2. Shanika caught 14 ladybugs. She caught 4 more ladybugs than Nam. How many ladybugs did Nam catch?

3. Rose saved 3 more dollars in her piggy bank than her sister. Her sister saved 11 dollars. How many dollars did Rose save?

4. Tamra decorated 13 cookies. Tamra decorated 2 fewer cookies than Emi. How many cookies did Emi decorate?

5. Erica's brother hit 12 tennis balls. Erica hit 6 fewer tennis balls than her brother. How many tennis balls did Erica hit?

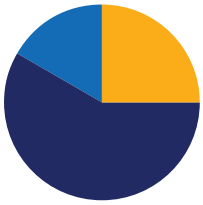
6. With his camera, Darnel took 5 more pictures than Kiana. He took 13 pictures. How many pictures did Kiana take?

Lesson 29

Objective: Solve *compare with bigger or smaller unknown* problem types.

Suggested Lesson Structure

Fluency Practice	(15 minutes)
Concept Development	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (15 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: Time **1.7E** (5 minutes)
- Fluency Favorite or Standards Review (5 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Students who completed all of the questions correctly on their most recent Practice Set should be given the next level of difficulty. All other students should try to improve their scores on their current levels.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: Time (5 minutes)

Materials: (T/S) Personal white board, time recording sheet (Fluency Template)

Note: This review fluency provides an opportunity to monitor which students can tell and write time in hours and half hours. When students draw hands for times to the half hour, make sure the hour hand is approximately halfway between the numbers.

T: Draw hands on the template's analog clock to show times to the hour and half hour.
S: (Write the time on the digital clock, and fill in the appropriate sentence frame.)
T: Write times to the hour and half hour on the digital clock.
S: (Draw the hands on the analog clock, and fill in the appropriate sentence frame.)

Fluency Favorite or Standards Review (5 minutes)

Note: If needed, repeat one of the Standards Check fluency activities. If not, select a class favorite fluency activity, or begin the Concept Development.

Concept Development (35 minutes)

Materials: (S) Problem Set

Note: By working with double strip diagrams as related to the varying comparison problem types, students have a way to approach any comparison problem.

- How do we set up our story as a strip diagram?
- Read carefully and determine who has more.
- Is every part of the story represented in your strip diagram?

Suggested Delivery of Instruction for Solving Word Problems

1. Model the problem, calculate, and write a statement.

Choose two pairs of students to work on chart paper while the others work independently or in pairs at their seats. Review the following questions before beginning the first problem:

- How do we set up our story into a double strip diagram?
- Read carefully. Who has more?
- Is every part of the story represented in your strip diagram?

As students work, circulate and support. Some students may feel stuck and struggle with choosing the appropriate method to use. Encourage and support them in learning to persevere and make sense of the problems.

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Encourage students who need additional support moving to the strip diagram representation as the position of the unknown changes to draw a number bond as part of their work. Some students relate to the strip diagram through its similarities with number bonds.

After three minutes, have the two pairs of students share their labeled diagrams. Allow students to briefly question their peers until it is agreed the diagrams or drawings represent the story correctly. Then, give everyone two to three minutes to finish work on that question. All students should write their equations and statements of the answer.

2. Assess the solution for reasonableness.

Give all students one to two minutes to assess and explain the reasonableness of their solution to a partner. For about one minute, have the demonstrating students receive and respond to feedback and questions from their peers.

3. As a class, notice the ways the drawing depicts the story and the solution.

Ask questions to help students recognize how each part of their diagram matches the story and solution. This helps students begin to see how the same process can help them solve varying word problems. Keep at least one chart-paper sample of each solution for reference later in the lesson.

Problem 1 (*Compare with difference unknown.*)

Tony gave 16 dollars to the animal shelter. Maria gave 10 dollars to the animal shelter. How many more dollars did Tony give to the animal shelter than Maria?

Note: After students have explained their strip diagram and solution accurately, point to sections of the strip diagram, and ask the class questions such as, "What does this part represent? How do you know?"

For the next five problems, have only the students at the board share their work so that students have time to work through and discuss all six problems. Choose one or two probing questions that support student development, as needed.

Problem 2 (*Compare with bigger unknown.*)

Shanika built a block tower using 14 blocks. Ximena built a tower by using 5 more blocks than Shanika. How many blocks did Ximena use to build her tower?

Note: For many students, Problem 2 is more challenging to solve than Problem 1 because one of the sets being compared (Ximena's) has a missing part. Some students may quickly find an accurate solution from adding the two numbers (14 + 5) but may not demonstrate understanding in their drawing.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

If students do not have experience with a context such as the one used in Problem 2, act out the problem with a few student volunteers before having the class begin to draw and solve the problem. The process of acting out problems can be very beneficial to students, including some emergent bilingual students.

Problem 3 (*Compare with difference unknown.*)

Diego walked for 10 minutes to get to Katie's house. The next day, Katie took a shortcut and walked to Diego's house in 8 minutes. How much shorter in time was Katie's walk?

Note: Problem 3 brings students back to a *compare with difference unknown* problem type, which they should be gaining confidence in solving. Celebrate the strategies students use to achieve such successes as a motivator to continue persevering at problems they initially find challenging.

Problem 4 (*Compare with smaller unknown*.)

Long read 16 pages in a book. Kassie read 4 fewer pages in her book. How many pages did Kassie read?

Note: Students sometimes struggle with the term fewer, making Problem 4 more challenging. Using relatively small differences (such as 4) can support students in visualizing the problem and learning the vocabulary.

Problem 5 (*Compare with bigger unknown. More* or *fewer* suggesting the incorrect operation.)

Nam earned 13 dollars. Nam earned 4 fewer dollars than Catalina. How many dollars did Catalina earn?

Note: Problem 5 is challenging because *fewer than* suggests the incorrect operation. Similar to Problem 4, the small difference between the two amounts (4 dollars) is intentionally selected to support students in working with this challenging problem type.

Problem 6 (*Compare with smaller unknown. More* or *fewer* suggesting the incorrect operation.)

After dinner, Jose washed 15 spoons. He washed 9 more spoons than forks. How many forks did Jose wash?

Note: Problem 6 uses *more than*, but students must subtract to find the number of forks that were washed. As a final problem, notice that the difference between the two sets being compared is 9, a much larger difference than used in the previous two problems.

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

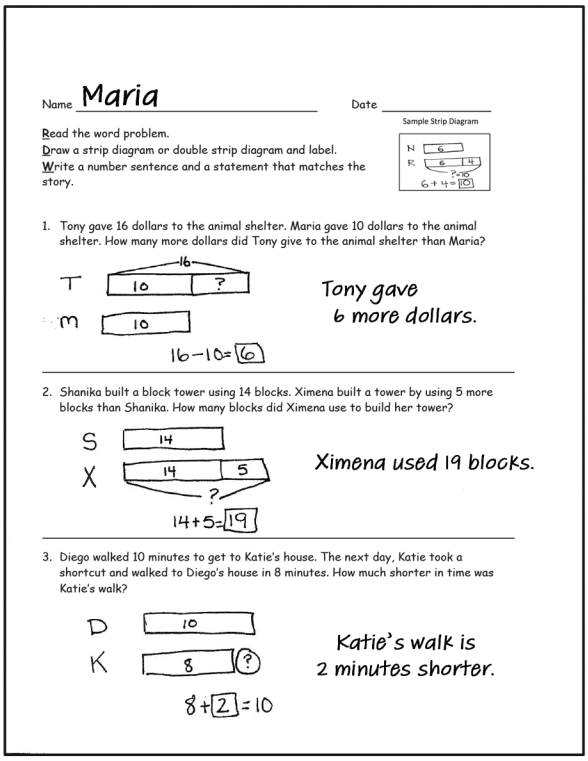
Lesson Objective: Solve *compare with bigger or smaller unknown* problem types.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Look at Problem 1. What did you draw? How did your drawing help you solve the problem?


Name Maria Date

Sample Strip Diagram

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Tony gave 16 dollars to the animal shelter. Maria gave 10 dollars to the animal shelter. How many more dollars did Tony give to the animal shelter than Maria?

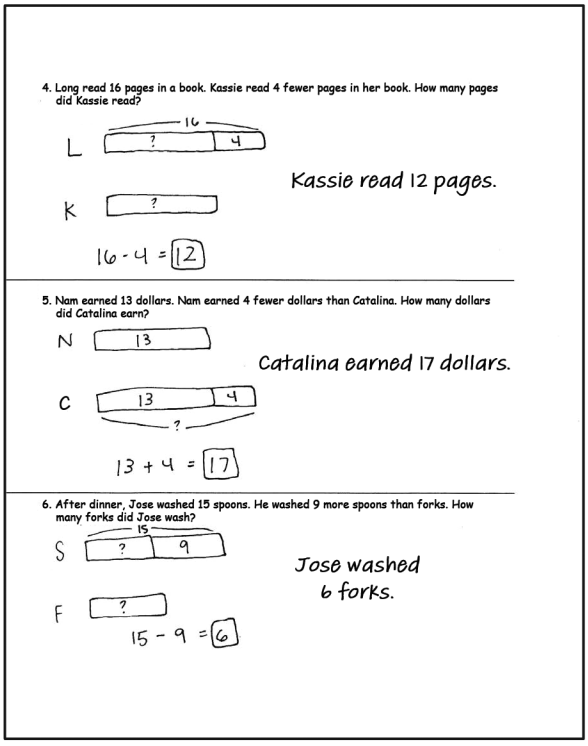
T 16 (10, ?)
M 10
16 − 10 = 6
Tony gave 6 more dollars.

2. Shanika built a block tower using 14 blocks. Ximena built a tower by using 5 more blocks than Shanika. How many blocks did Ximena use to build her tower?

S 14
X 14, 5, ?
14 + 5 = 19
Ximena used 19 blocks.

3. Diego walked 10 minutes to get to Katie's house. The next day, Katie took a shortcut and walked to Diego's house in 8 minutes. How much shorter in time was Katie's walk?

D 10
K 8, (?)
8 + 2 = 10
Katie's walk is 2 minutes shorter.


4. Long read 16 pages in a book. Kassie read 4 fewer pages in her book. How many pages did Kassie read?

L 16 (?, 4)
K ?
16 − 4 = 12
Kassie read 12 pages.

5. Nam earned 13 dollars. Nam earned 4 fewer dollars than Catalina. How many dollars did Catalina earn?

N 13
C 13, 4, ?
13 + 4 = 17
Catalina earned 17 dollars.

6. After dinner, Jose washed 15 spoons. He washed 9 more spoons than forks. How many forks did Jose wash?

S 15 (?, 9)
F ?
15 − 9 = 6
Jose washed 6 forks.

- Look at Problem 3. How is your drawing similar or different from the drawing you made for Problem 1?
- Look at Problem 4. How was setting up your drawing similar to Problem 5? Explain your thinking.
- Why is it important to read the stories carefully? When you see the words *more than*, does it always mean you have to add to find your solution? Use examples from your Problem Set to support your thinking.

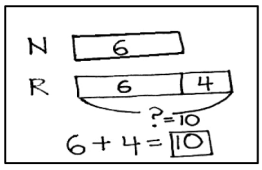
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

Sample Strip Diagram



1. Tony gave 16 dollars to the animal shelter. Maria gave 10 dollars to the animal shelter. How many more dollars did Tony give to the animal shelter than Maria?

2. Shanika built a block tower using 14 blocks. Ximena built a tower by using 5 more blocks than Shanika. How many blocks did Ximena use to build her tower?

3. Diego walked 10 minutes to get to Katie's house. The next day, Katie took a shortcut and walked to Diego's house in 8 minutes. How much shorter in time was Katie's walk?

4. Long read 16 pages in a book. Kassie read 4 fewer pages in her book. How many pages did Kassie read?

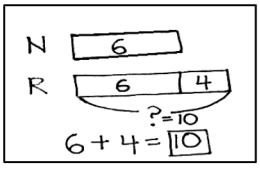
5. Nam earned 13 dollars. Nam earned 4 fewer dollars than Catalina. How many dollars did Catalina earn?

6. After dinner, Jose washed 15 spoons. He washed 9 more spoons than forks. How many forks did Jose wash?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

Sample Strip Diagram

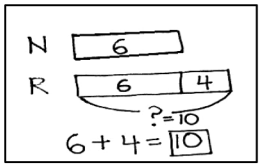


Camilia jumped off the diving board into the pool 3 fewer times than Emi. Camilia jumped off the diving board 14 times. How many times did Emi jump off the diving board?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

Sample Strip diagram



1. Fatima walks 15 blocks home from school. Jesus walks 8 blocks. How much longer is Fatima's walk home from school than Jesus's?

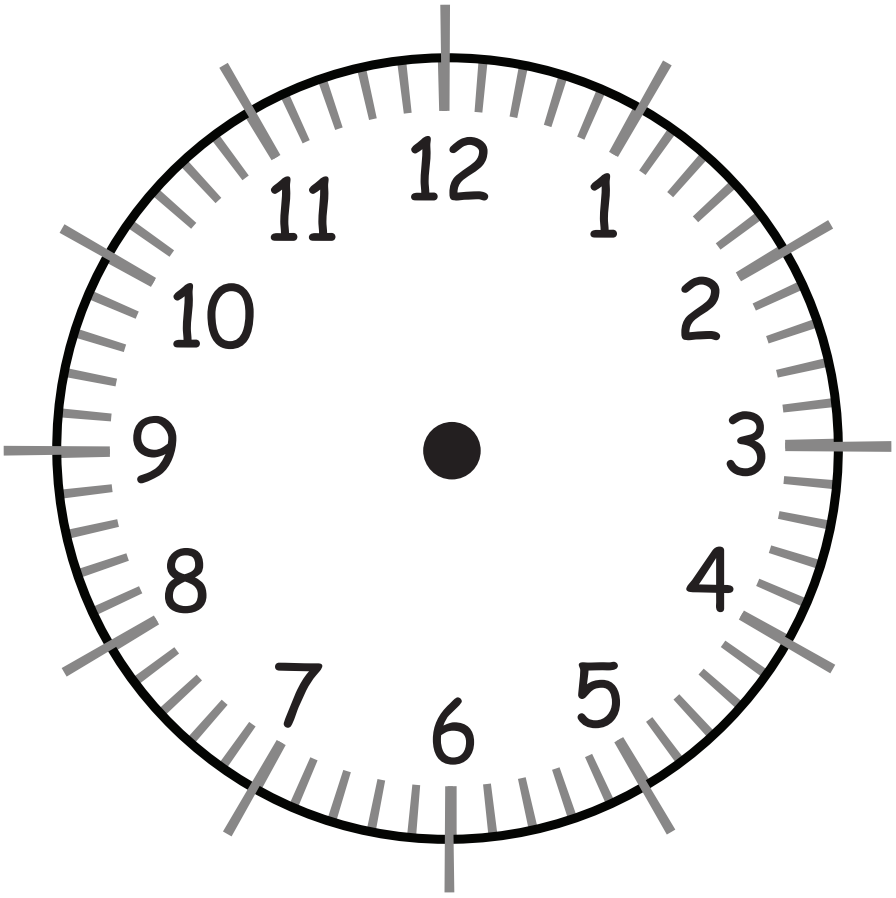
2. Maria bought a basket with 13 strawberries in it. Darnel bought a basket with 4 more strawberries than Maria. How many strawberries did Darnel's basket have in it?

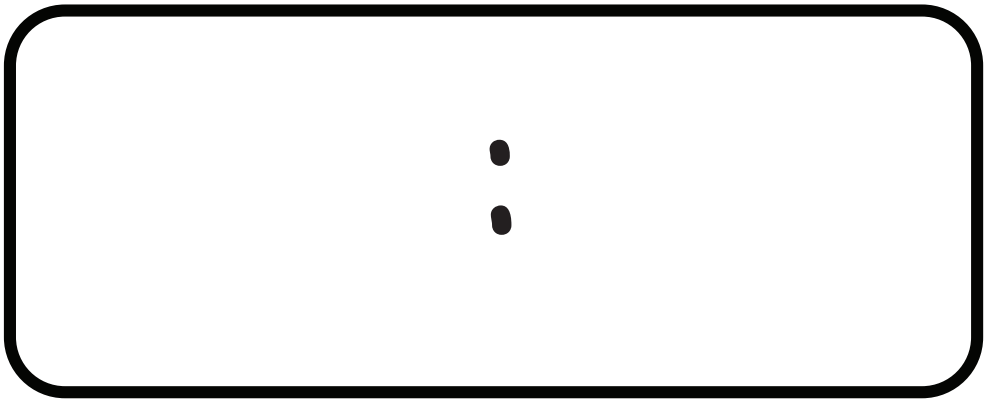
3. Tamra has saved 5 dollars. Kim has saved 11 dollars. How many fewer dollars has Tamra saved than Kim?

4. Kiana picked 12 apples from the tree. She picked 6 fewer apples than Vinh. How many apples did Vinh pick from the tree?

5. Genesis spent 16 dollars on school supplies. She spent 5 more dollars on school supplies than Juan. How many dollars did Juan spend?

6. The first grade football team has 12 players. The first grade team has 6 fewer players than the second grade team. How many players are on the second grade team?





It is _____ o'clock. It is half past _____.

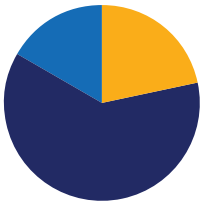
time recording sheet

Lesson 30

Objective: Share and critique strategies for solving problems of varied types.

Suggested Lesson Structure

Fluency Practice	(13 minutes)
Concept Development	(37 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (13 minutes)

- Fluency Differentiated Practice Sets **1.3D** (5 minutes)
- Standards Check: Shapes **1.6D, 1.6E** (8 minutes)

Fluency Differentiated Practice Sets (5 minutes)

Materials: (S) Fluency Practice Sets (Lesson 1)

Note: Give the appropriate Practice Set to each student. Help students become aware of their improvement. After students do today's Practice Sets, ask them to stand if they tried a new level today or improved their score from the previous day. Consider having students clap once for each person standing to celebrate improvement.

Students complete as many problems as they can in 90 seconds. Assign a counting pattern and start number for early finishers, or have them practice make ten addition or subtraction on the back of their papers. Collect and correct any Practice Sets completed within the allotted time.

Standards Check: Shapes (8 minutes)

Materials: (T) Two-dimensional shape flashcards (Fluency Template 1), three-dimensional objects used in Module 5 Lesson 3 (S) Personal white board, shapes recording sheet (Fluency Template 2)

Note: This activity reviews the attributes and names of two-dimensional and three-dimensional shapes. Remember that a square is also a rectangle and a rhombus, and a cube is also a rectangular prism.

1. Invite students to look at their templates and to read the names of the two-dimensional shapes and attributes with the teacher. Show a shape card or object. Students circle the name(s) of the shape and complete the attributes section. Repeat for all two-dimensional shapes.

2. Invite students to look at their templates and to read the names of the three-dimensional shapes and attributes with the teacher. Show a three-dimensional object. Students circle the name(s) of the shape and complete the attributes section. Repeat for all three-dimensional shapes.
3. Show two- or three-dimensional shapes. Ask students to circle the other shapes that could be used, if any, to create them.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Students needing more proficiency practice with shapes, including some emergent bilingual students, may benefit from practice identifying and naming the different three-dimensional shapes.

Concept Development (37 minutes)

Materials: (T) Chart paper (S) Problem Set

Students sit at the tables next to their partner with their Problem Sets.

Note: In today's lesson, students work on their Problem Set and solve the varied problem types they encountered throughout the year. Selected pairs of students then discuss their methods for solving the problems and explain their work. After they share, the whole class participates in a discussion as students make comments and suggestions and ask each other questions.

- How does your work or strip diagram help you solve the problem?
- A compliment I could give you is…
- A question I have for you is…?
- One way you might improve your work would be…
- Let's look for similarities and differences in our drawings and strategies.

Suggested Delivery of Instruction for Sharing and Critiquing Strategies

1. Solve varied problem types using the RDW process.

For each story problem, invite two pairs of students to model their work on chart paper while the others work independently or in pairs. Choose new pairs for each problem, and consider selecting students who use varied strategies for solving.

As students work, circulate and provide support. Some students may feel stuck and struggle with picking the appropriate method or choosing between a single or a double strip diagram to use. Encourage and support them in learning to persevere to make sense of the problems.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

Observe levels of student understanding, and select the most appropriate problem type to focus on during today's Concept Development.

2. In partnerships, share and critique strategies.

Give students one to two minutes to explain their methods of solving and how they found their solution with their partners or with another pair of students.

3. As a class and with partners, share and critique strategies.

For Problems 1 and 2, share and critique strategies as a class. For about one minute, have the demonstrating students share their methods and explain their work. The rest of the class may raise questions, and the presenters respond to feedback and questions from their peers. For the remaining problems, have students share and critique with their partners using the chart with question frames. Finally, all students return to their work and make improvements.

Problem 1 (*Add to with change unknown.*)

Nine letters came in the mail on Monday. Some more letters were delivered on Tuesday. Then, there were 13 letters. How many letters were delivered on Tuesday?

Note: Students have worked with this problem type throughout the year. Some students may use addition to solve, while others use subtraction. It is important to see that different operations can be used as long as the story problem has been analyzed accurately.

NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION:

For students who need additional support with computation, use smaller numbers or numbers that are close together so they can focus on how to interpret and solve different problem types.

Problem 2 (*Separate with addend unknown*.)

Bobby and Tessa found a total of 18 seeds in their watermelon slices. Bobby found 7 seeds in his slice. How many seeds did Tessa find?

Note: Like Problem 1, students may solve using addition or subtraction. Larger numbers are used within the problem, which may also promote conversation about place value as students discuss their solution strategies.

Problem 3 (*Add to with start unknown*.)

Some students were playing on the playground. Eight students came to join, and now there are 14 students. How many students were on the playground in the beginning?

Note: Problem 3 is challenging because it begins with an unknown. If both members of a partnership need more support, remind them to read the story one sentence at a time and check that their drawing represents each sentence. Students might use concrete manipulatives and then draw after they understand the relationships within the problem.

Problem 4 (*Compare with difference unknown*.)

Wallace walked for 7 minutes. Luis walked for 14 minutes. How much shorter in time was Wallace's walk?

Note: This problem challenges students to notice that they are working with a comparison problem type.

Problem 5 (*Compare with bigger unknown.*)

Evelyn saw 12 ants walking in a row. Fran saw 6 more ants than Evelyn. How many ants did Fran see?

Note: Students must recognize that the second sentence in this story problem only gives part of the necessary information to determine how many ants Fran saw. Support students with questions such as, "Who are the characters? Who saw more ants? What can you draw?"

Problem 6 (*Compare with smaller unknown.*)

Jasmine has 13 cents in her front pocket. She has 8 fewer cents in her back pocket. How many cents does Jasmine have in her back pocket?

Note: Problem 6 presents some of the same challenges as Problem 5, this time using the term *fewer*. Support students with questions such as, "Are you comparing, or are you putting together? What are you comparing? What can you draw?"

Problem Set (10 minutes)

Students should do their personal best to complete the Problem Set within the allotted 10 minutes. For some classes, it may be appropriate to adjust the assignment by specifying which problems they work on first. Some problems do not specify a method for solving. Students should solve these problems using the RDW process used for Application Problems.

Student Debrief (10 minutes)

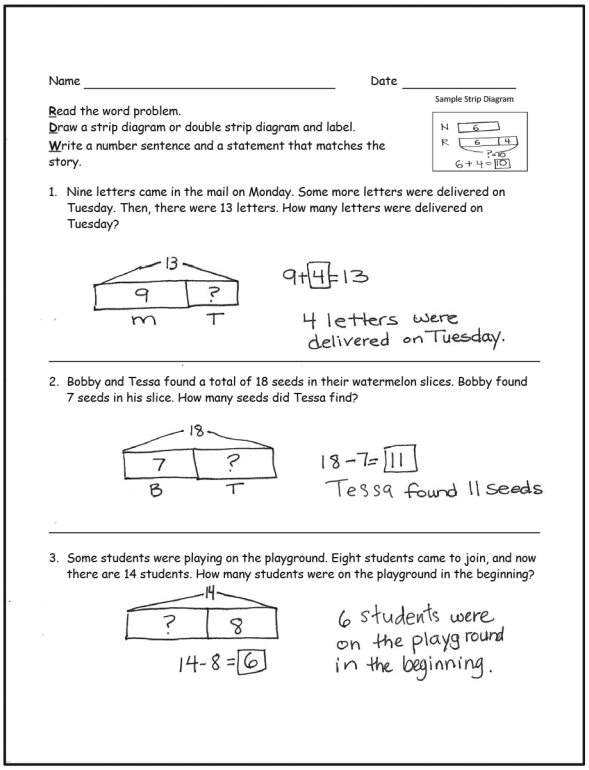
Lesson Objective: Share and critique strategies for solving problems of varied types.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their solutions for the Problem Set. They should check work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson.

Any combination of the questions below may be used to lead the discussion.

- Which problems did you and your partner find challenging today? How did your discussion help you to solve the problem or to improve your strategies for solving the problem?



Name _____ Date _____

Sample Strip Diagram

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Nine letters came in the mail on Monday. Some more letters were delivered on Tuesday. Then, there were 13 letters. How many letters were delivered on Tuesday?

13; 9 (M); ? (T)

9 + 4 = 13

4 letters were delivered on Tuesday.

2. Bobby and Tessa found a total of 18 seeds in their watermelon slices. Bobby found 7 seeds in his slice. How many seeds did Tessa find?

18; 7 (B); ? (T)

18 − 7 = 11

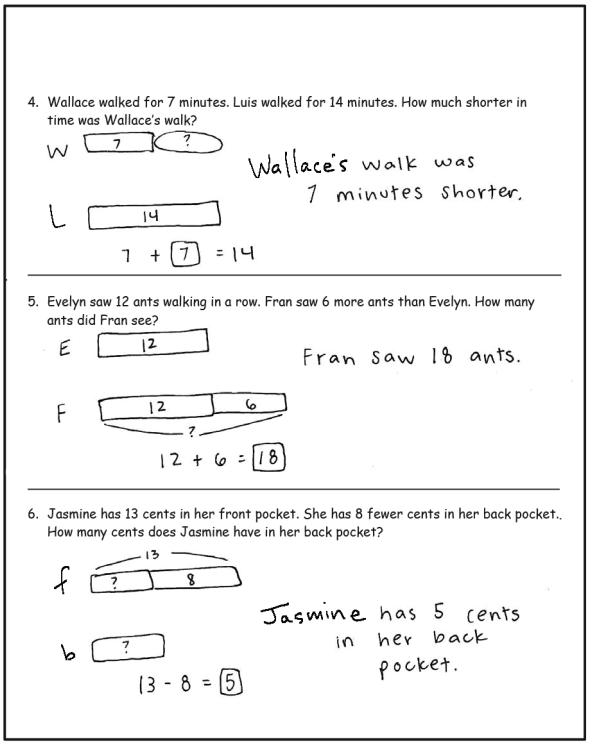
Tessa found 11 seeds

3. Some students were playing on the playground. Eight students came to join, and now there are 14 students. How many students were on the playground in the beginning?

14; ?; 8

14 − 8 = 6

6 students were on the playground in the beginning.



4. Wallace walked for 7 minutes. Luis walked for 14 minutes. How much shorter in time was Wallace's walk?

W: 7; ?

Wallace's walk was 7 minutes shorter.

L: 14

7 + 7 = 14

5. Evelyn saw 12 ants walking in a row. Fran saw 6 more ants than Evelyn. How many ants did Fran see?

E: 12

Fran saw 18 ants.

F: 12; 6; ?

12 + 6 = 18

6. Jasmine has 13 cents in her front pocket. She has 8 fewer cents in her back pocket. How many cents does Jasmine have in her back pocket?

f: 13; ?; 8

b: ?

13 − 8 = 5

Jasmine has 5 cents in her back pocket.

- What were some of the similarities in the way you and your partner drew and solved the problems? What were some of the differences?
- How did seeing your partner's work help improve your own work? Show your improvement to the class.
- What compliments did you give your partner about her work? Show the class an example of your partner's work.

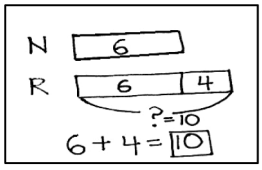
Exit Ticket (3 minutes)

After the Student Debrief, instruct students to complete the Exit Ticket. A review of their work will help with assessing students' understanding of the concepts that were presented in today's lesson and planning more effectively for future lessons. The questions may be read aloud to the students.

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

Sample Strip Diagram



1. Nine letters came in the mail on Monday. Some more letters were delivered on Tuesday. Then, there were 13 letters. How many letters were delivered on Tuesday?

2. Bobby and Tessa found a total of 18 seeds in their watermelon slices. Bobby found 7 seeds in his slice. How many seeds did Tessa find?

3. Some students were playing on the playground. Eight students came to join, and now there are 14 students. How many students were on the playground in the beginning?

4. Wallace walked for 7 minutes. Luis walked for 14 minutes. How much shorter in time was Wallace's walk?

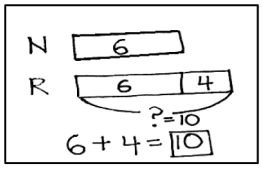
5. Evelyn saw 12 ants walking in a row. Fran saw 6 more ants than Evelyn. How many ants did Fran see?

6. Jasmine has 13 cents in her front pocket. She has 8 fewer cents in her back pocket. How many cents does Jasmine have in her back pocket?

Name _____ Date _____

Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

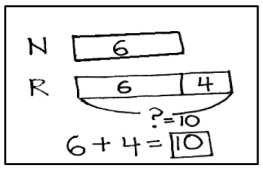
Sample Strip Diagram



Emi tried on 8 fewer costumes than Vinh. Emi tried on 4 costumes. How many costumes did Vinh try on?

Name _____ Date _____

Sample Strip Diagram



Read the word problem.
Draw a strip diagram or double strip diagram and label.
Write a number sentence and a statement that matches the story.

1. Eight students lined up to go to art. Some more lined up to go to music. Then, there were 12 students in line. How many students lined up to go to music?

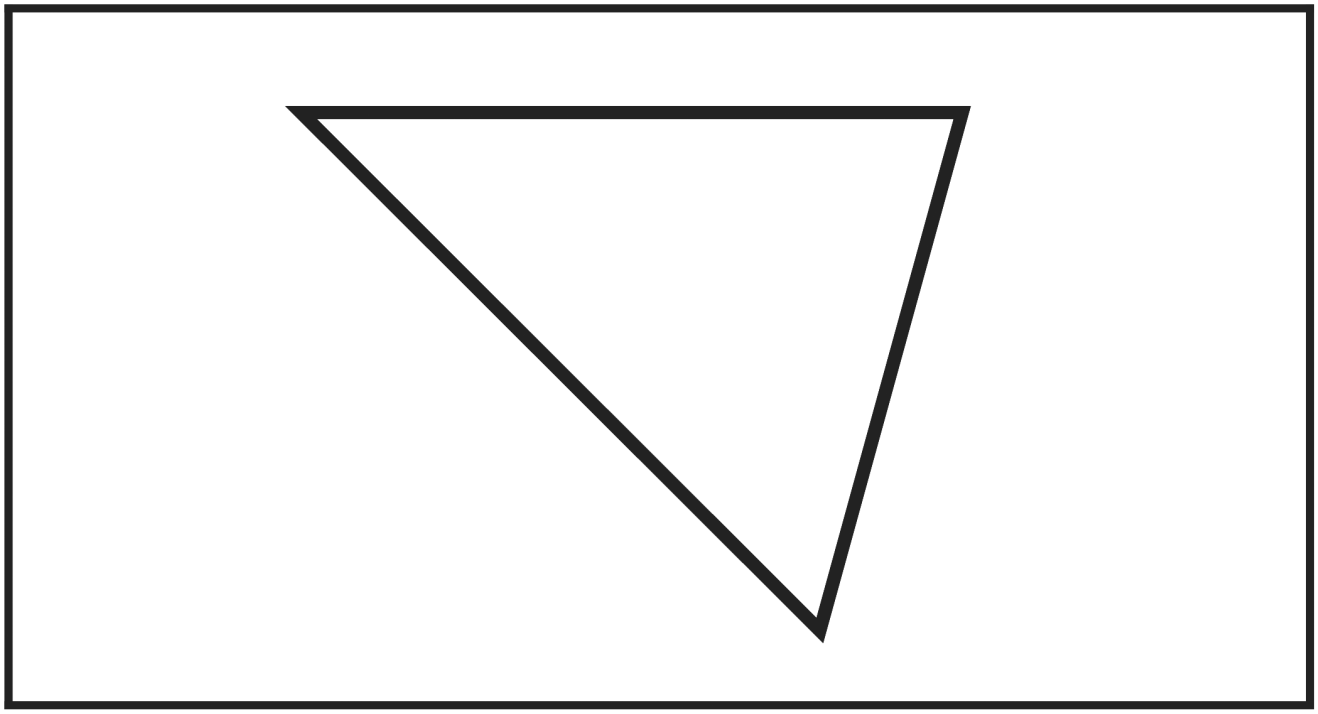
2. Peter rode his bike 5 blocks. Mai rode her bike 13 blocks. How much shorter was Peter's ride?

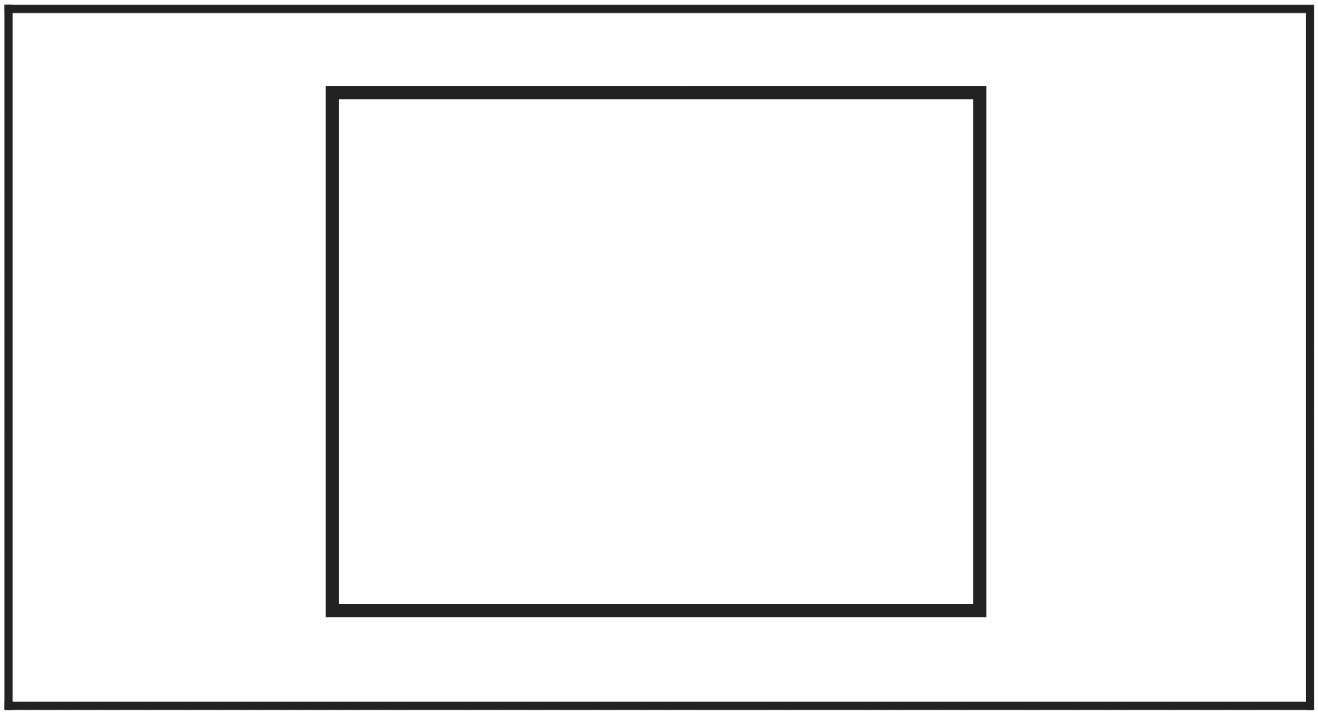
3. Lee and Anton collected 16 leaves on their walk. Nine of the leaves were Lee's. How many leaves were Anton's?

4. The team counted 11 soccer balls inside the net. They counted 5 fewer soccer balls outside of the net. How many soccer balls were outside of the net?

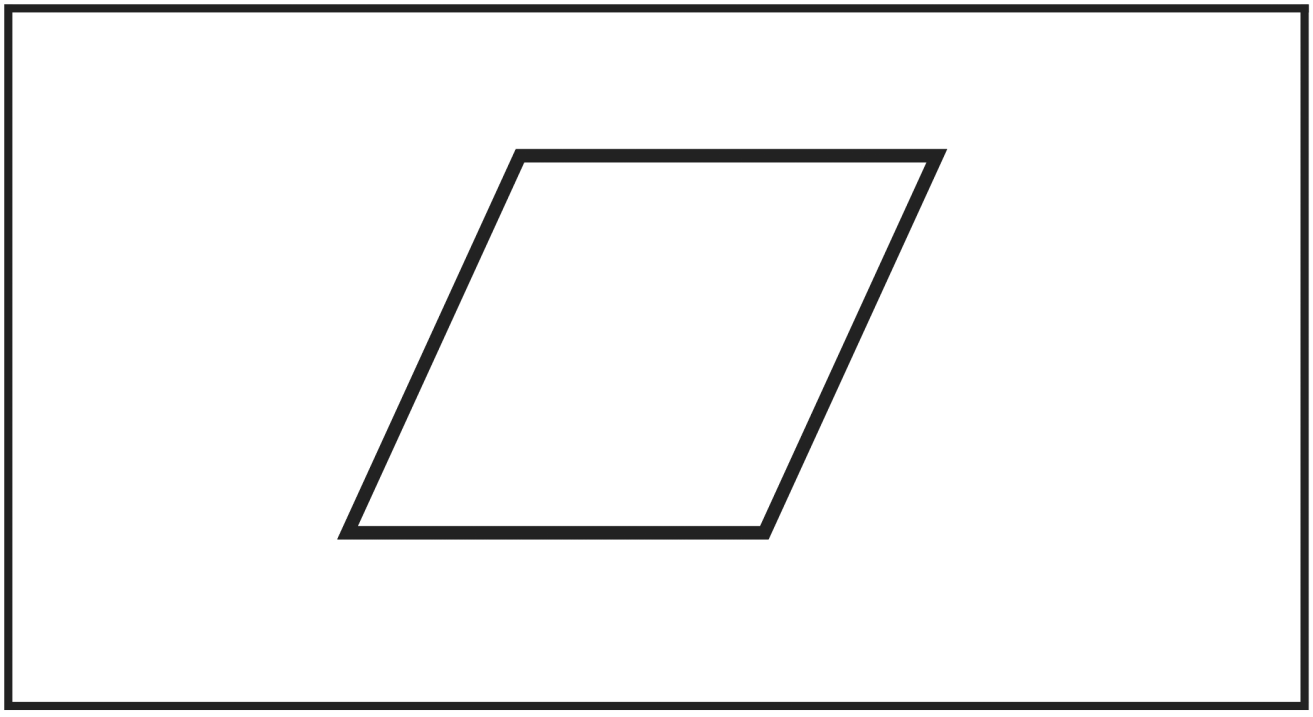
5. Julio saw 14 cars drive by his house. Julio saw 6 more cars than Shanika. How many cars did Shanika see?

6. Some students were eating lunch. Four students joined them. Now, there are 17 students eating lunch. How many students were eating lunch in the beginning?

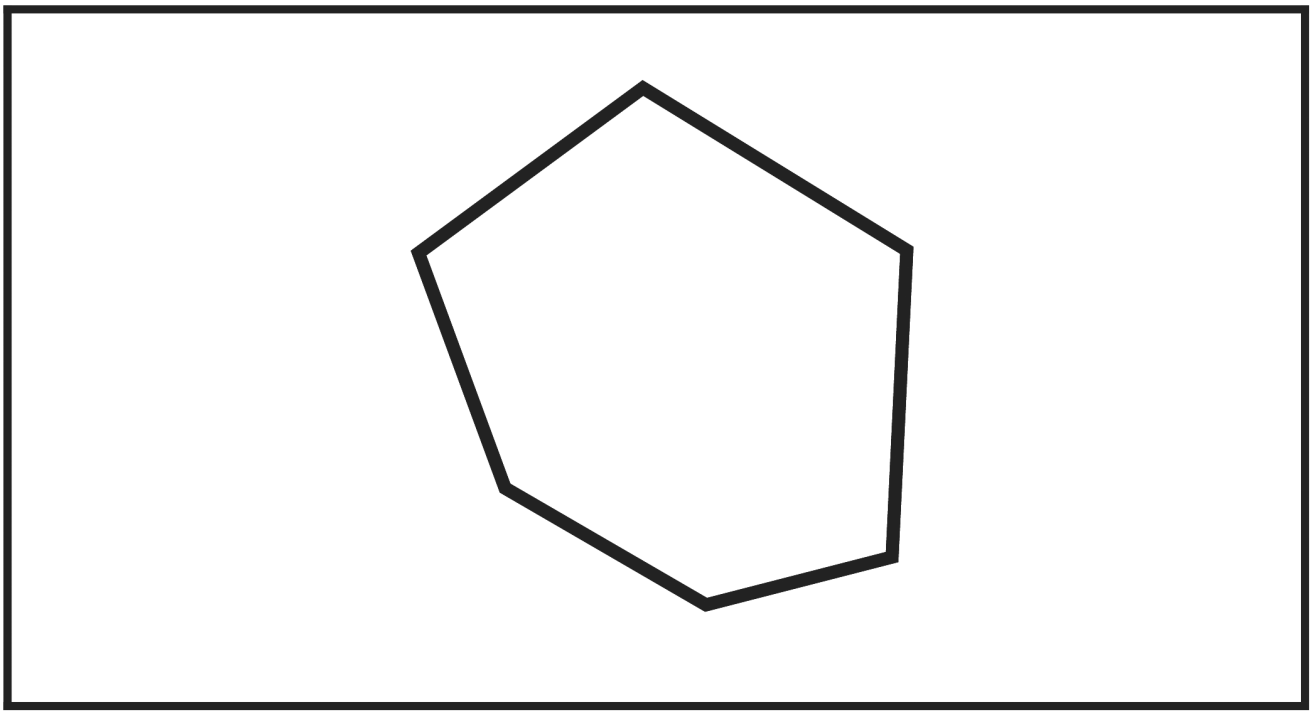


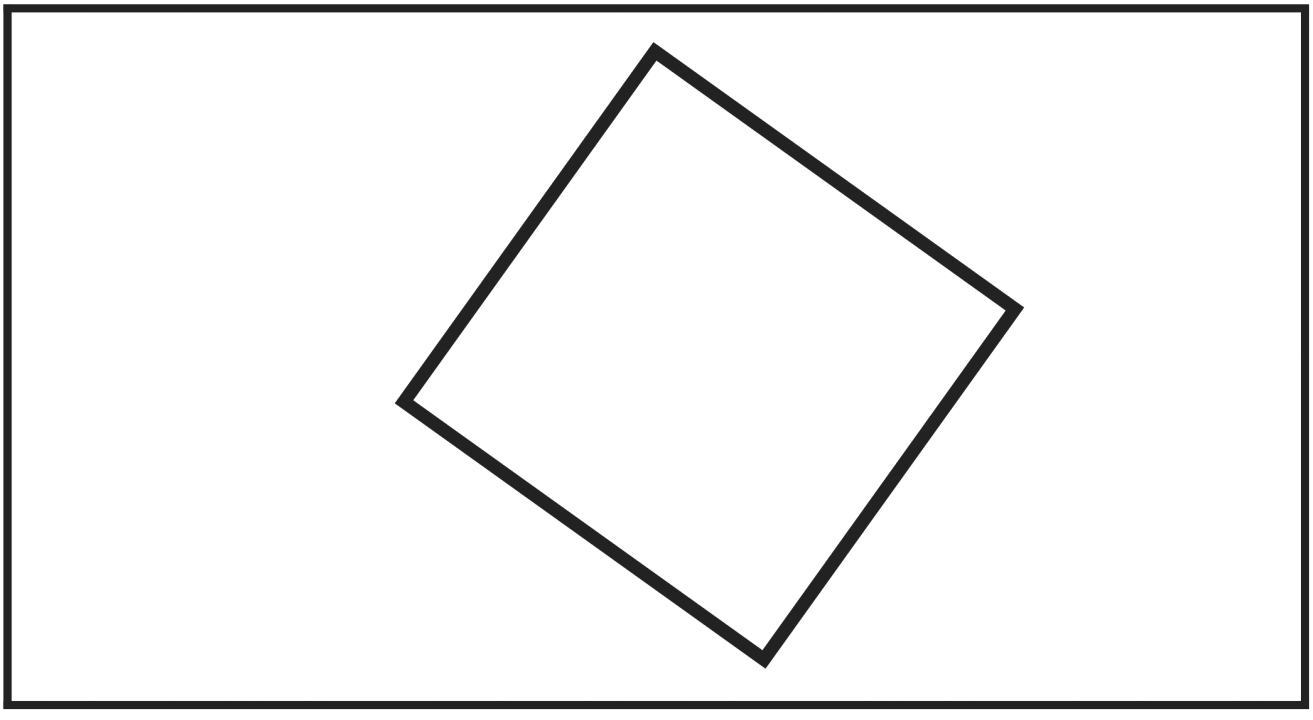


two-dimensional shape flashcards

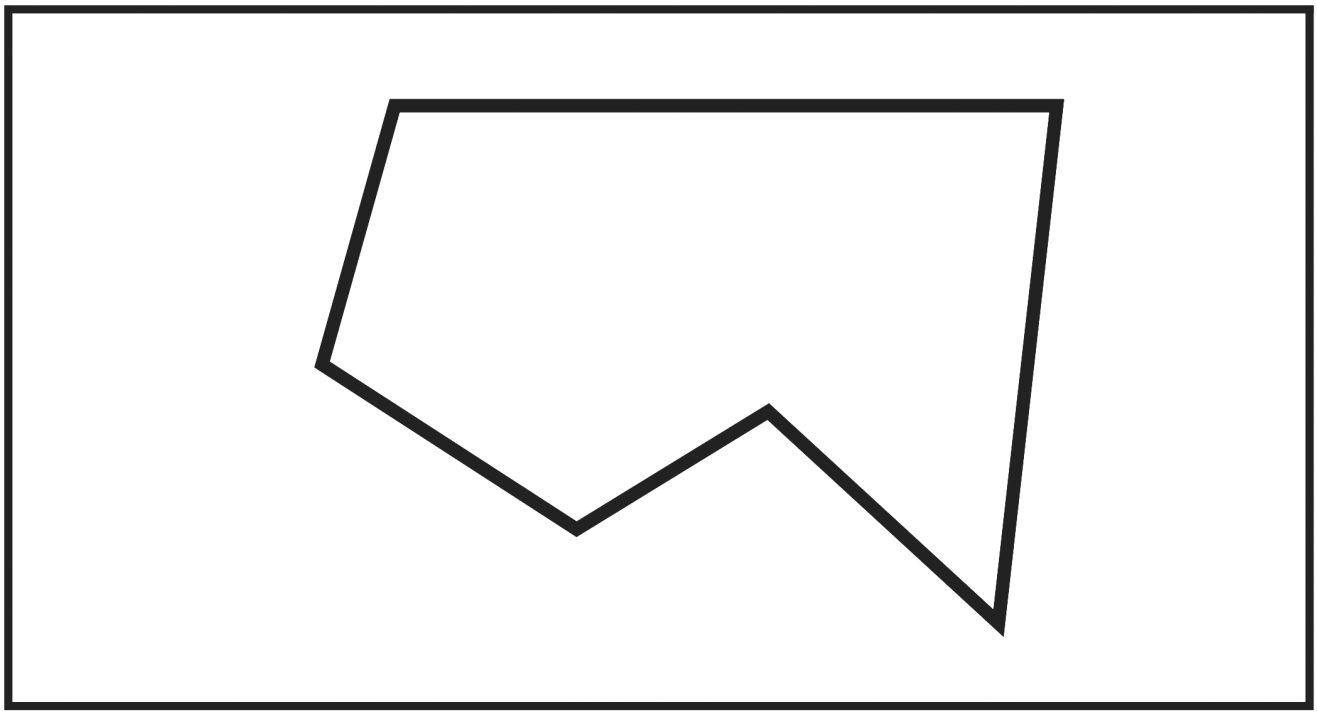


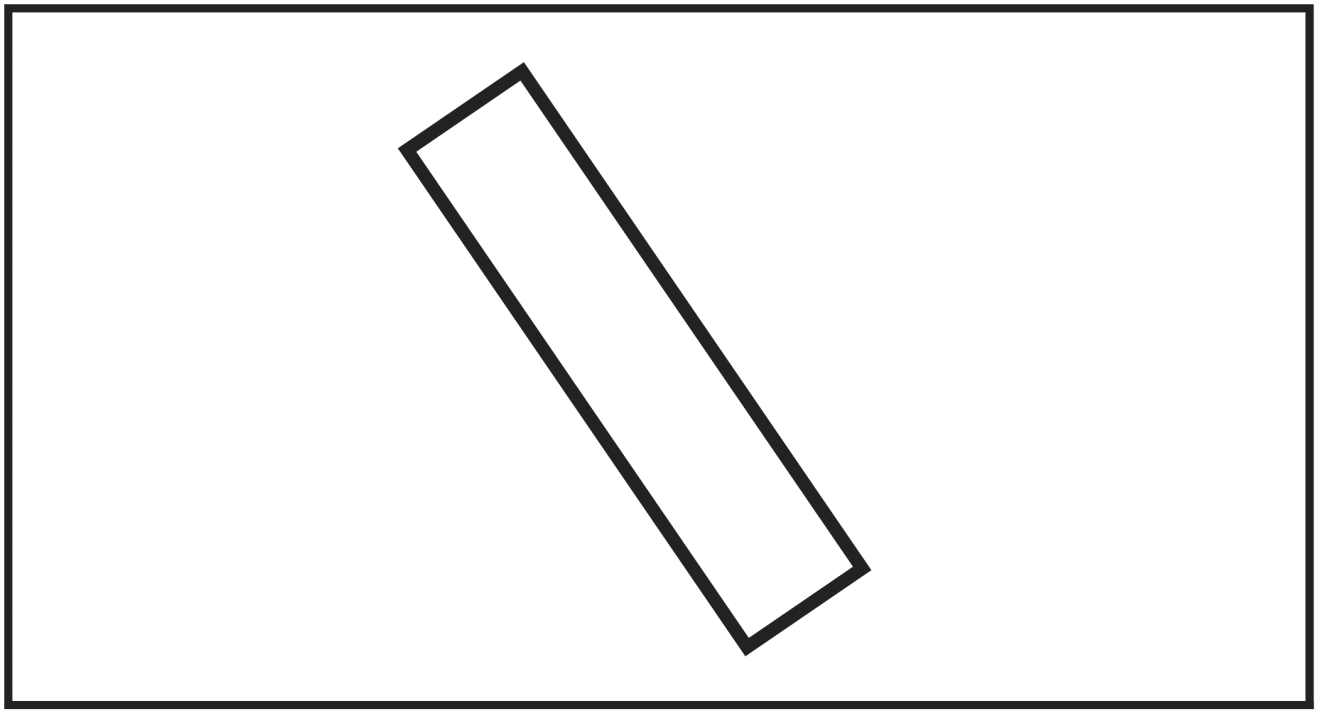
two-dimensional shape flashcards





two-dimensional shape flashcards





two-dimensional shape flashcards

2-D SHAPES	3-D SHAPES
circle	sphere
triangle	cone
rectangle	cylinder
rhombus	rectangular prism
square	cube
hexagon	triangular prism
ATTRIBUTES	**ATTRIBUTES**
_____ vertices	_____ vertices
_____ square corners	_____ faces
_____ sides	_____ straight edges
Are all sides the same length?	Are all faces the same shape?
yes no	yes no

shapes recording sheet

Topic F

Culminating Experiences

1.3D

Focus Standard:		1.3D	Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.
Instructional Days:		1	
Coherence	**-Links from:**	G1–M4	Place Value, Comparison, Addition and Subtraction to 40
	-Links to:	G2–M3	Place Value, Counting, and Comparison of Numbers to 1,200

Topic G culminates not only Module 6, but also a full year of learning for Grade 1 students. It is a joyous celebration of the great progress of all students. During each lesson, students recognize how much they know now in comparison with the start of the year. They celebrate this learning by using their acquired skills and knowledge to enjoy entertaining games and activities with their peers.

During Lesson 31, students play games with cards and dice that celebrate their progress in fluently adding and subtracting within 10 and 20. All of the games are played with materials that students can find at home or bring home from school to encourage engaging summer practice.

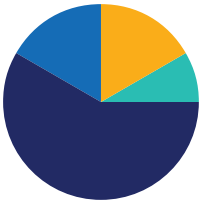
A Teaching Sequence Toward Proficiency in Culminating Experiences	
Objective 1:	**Celebrate progress in fluency with adding and subtracting within 10 (and 20). Organize engaging summer practice. (Lesson 31)**

Lesson 31

Objective: Celebrate progress in fluency with adding and subtracting within 10 (and 20). Organize engaging summer practice.

Suggested Lesson Structure

Fluency Practice	(10 minutes)
Application Problem	(5 minutes)
Culminating Activity	(35 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Fluency Practice (10 minutes)

- Sprint: Count Dots **K.2C, K.2D** (10 minutes)

Sprint: Count Dots (10 minutes)

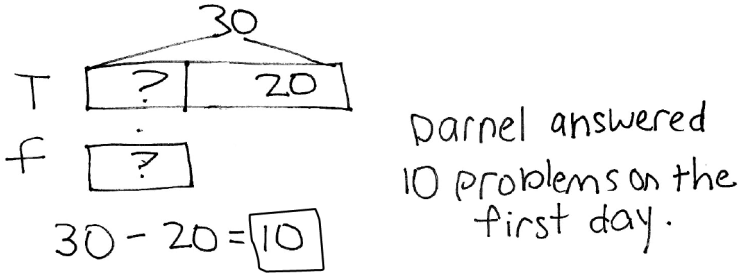
Materials: (S) Count Dots Sprint

Note: This Sprint is the one students completed on the first day of school. Repeating it in the final days of school will likely bring students joy as they recognize the ease with which they are able to do it after a year of mathematical growth. Be sure to assign a counting sequence for early finishers!

Application Problem (5 minutes)

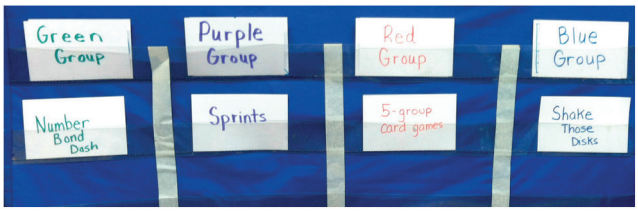
Darnel answered 30 problems on Side B of his Count Dots Sprint today. He was proud because he answered 20 more problems today than he did on the first day of school. How many problems did he answer on the first day of school?

Note: This *compare with smaller unknown* problem challenges students by suggesting the wrong operation.



Culminating Activity (35 minutes)

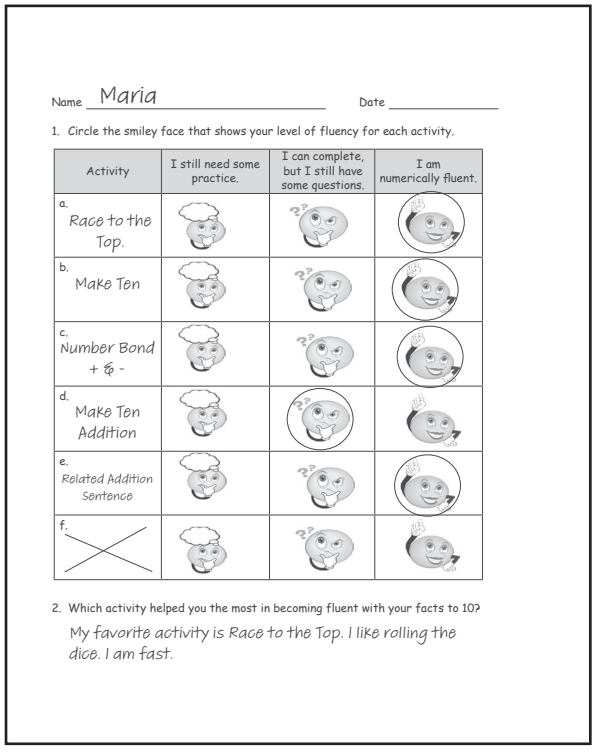
Materials: (T) Organizational chart for center assignments (example to the right)
(S) Numeral cards (Template 1), Target Practice (Template 2), Race to the Top (Template 3), personal white board, die



Note: In the next two lessons, students revisit some of their favorite fluency activities from the year to celebrate and reflect on their progress.

Take the steps listed below to prepare for the culminating activity:

- Choose from the suggested activities, or select other fluency favorites based on the needs and interests of the class.
- Prepare materials and stations.
- On the Problem Set, before making copies for today's lesson, write the names of the activities selected. (See the picture to the right.) This is an opportunity for students to reflect on their progress.



Name Maria Date

1. Circle the smiley face that shows your level of fluency for each activity.

Activity	I still need some practice.	I can complete, but I still have some questions.	I am numerically fluent.
a. Race to the Top.			
b. Make Ten			
c. Number Bond + & -			
d. Make Ten Addition			
e. Related Addition Sentence			
f.			

2. Which activity helped you the most in becoming fluent with your facts to 10?
My favorite activity is Race to the Top. I like rolling the dice. I am fast.

T: Today, we are going to celebrate our fluency progress. Think about the fluency activities we did this year. Which were your favorites?

T: How did they help you improve your counting, adding, and subtracting skills? Share your ideas with your partner.

S: Happy Counting helped me count forward and backward. → Sprints helped me with addition and subtraction facts. → Coin drops helped with counting on.

T: Great! Today, I have some of those activities set up at centers. You will start at one center and rotate at my signal to the other centers. Review instructions for each center and assign partners. Students spend about five minutes at each center.

Choose from the fluency celebration centers suggested below. Set up the number of centers that works best for the class.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

It is important to provide students with the math tools they need to play these games successfully. Support students with the use of manipulatives and possibly their personal white boards.

Missing Part: Make Ten

Materials: (S) Numeral cards (Template 1)

Each partner holds a card up to his or her forehead. The partner tells how many more are needed to make ten. Students must guess the cards on their foreheads. Partners can play simultaneously, each putting a card to his or her forehead.

Target Practice

Materials: (S) Personal white boards with Target Practice (Template 2), 1 die per pair

Follow the directions on the game board.

Race to the Top

Materials: (S) Personal white boards with Race to the Top (Template 3), 2 dice per pair

Partners take turns rolling the dice, saying an addition sentence and recording the sums on the graph. The game ends when time runs out or one of the columns reaches the top of the graph.

NOTES ON MULTIPLE MEANS OF ENGAGEMENT:

The games and activities in this lesson provide students, including some emergent bilingual students, with a variety of opportunities to utilize the language and skills they have learned throughout the year.

Subtraction with Cards

Materials: (S) Numeral cards (Template 1)

Partners combine their numeral cards and place them face down between them.

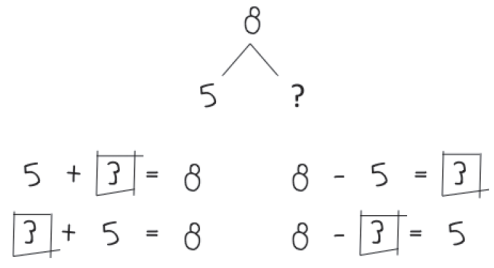
- Each partner flips over two cards and subtracts the smaller number from the larger one.
- The partner with the smallest difference keeps the cards played by both players in that round.
- If the differences are equal, the cards are set aside, and the winner of the next round keeps the cards from both rounds.
- When all of the cards have been used, the player with the most cards wins.

Number Bond Addition and Subtraction

Materials: (S) Personal white boards, 1 die per pair

Allow partners to choose a number less than 20 for their whole and roll the die to determine one of the parts.

- Both students write two addition and two subtraction sentences with a square for the unknown number in each equation and solve for the missing number.
- They then exchange boards and check each other's work.



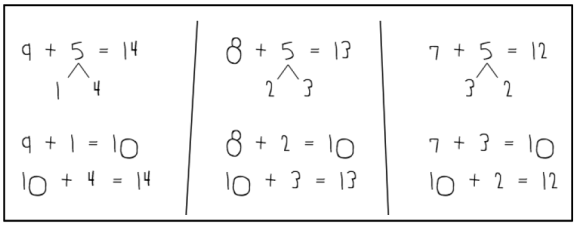
Make Ten Addition and Take from Ten Subtraction with Partners

Materials: (S) Personal white boards

Partners alternate practicing the make ten and take from ten strategies.

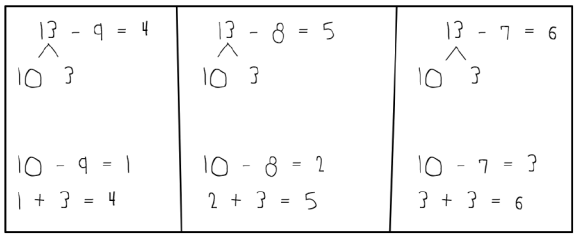
Make Ten Addition:

- Partners choose an addend for each other from 1 to 10.
- On their personal boards, students add their number to 9, 8, and 7. Remind students to write the two addition sentences they learned in Module 2.
- Partners then exchange boards and check each other's work.



Take from Ten Subtraction:

- Partners choose a minuend for each other between 10 and 20.
- On their personal white boards, students subtract 9, 8, and 7 from their number. Remind students to write the two number sentences (e.g., to solve 13 – 8, they write 10 – 8 = 2, 2 + 3 = 5).
- Partners then exchange boards and check each other's work.



Analogous Addition Sentences

Materials: (S) Personal white board, dice

- Step 1: Each partner rolls a die and writes the number rolled. They then make a list, adding 1 ten to their number on each new line up to 3 tens. (See the diagram to the right.)
- Step 2: Students write equations, adding the number on their partners' die to each line.
- Partners exchange boards and check each other's work.

Note: This game can be modified by using dice that have more than 6 sides. Students should be ready to add numbers to 20 and add multiples of 10 to these numbers.

STEP 1	
Partner A	Partner B
4	3
14	13
24	23
34	33

STEP 2	
Partner A	Partner B
4 + 3 = 7	3 + 4 = 7
14 + 3 = 17	13 + 4 = 17
24 + 3 = 27	23 + 4 = 27
34 + 3 = 37	33 + 4 = 37

Student Debrief (10 minutes)

Lesson Objective: Celebrate progress in fluency with adding and subtracting within 10 (and 20). Organize engaging summer practice.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience.

Invite students to review their center work today. They should reflect on their work with a partner. Guide students in a conversation to debrief the centers and reflect on their learning.

Any combination of the questions below may be used to lead the discussion.

- What is something you did today that you could not do before you came to first grade?
- Which of today's centers seemed simple? How does your experience today compare with the first time you did them?
- Are there any activities that were still a little challenging? What might you do to get better?
- Which of these games might be fun to play over the summer so you can keep your math skills sharp?

NOTES ON MULTIPLE MEANS OF REPRESENTATION:

Teachers should feel a sense of pride as they see their students demonstrate strategies to make math simple. It is also exciting when students are able to explain how they are thinking and relate concepts to one another.

Exit Ticket

Note: There is no Exit Ticket for this lesson.

A

Number Correct: _____

Name _____ Date _____

*Write the number of dots. Try to find ways to group the dots to make counting more efficient!

1.	●●		16.	●●●● ●●●	
2.	●●●		17.	●●●●● ●●●	
3.	●●●●		18.	●●●●● ●●●●	
4.	●●●		19.	●●●●● ●●	
5.	●		20.	●●●●● ●	
6.	●●●●		21.	●●●●● ●●●●	
7.	●●●●●		22.	●●●●● ●●●●●	
8.	●●●●		23.	●●●● ●●●●●	
9.	●●●●● ●		24.	●●●●● ●●●	
10.	●●●●● ●●		25.	●●● ●● ●●●●●	
11.	●●●●●		26.	●●●●● ●●	
12.	●●●●		27.	●●● ●● ●● ●●●	
13.	●●●●● ●		28.	●● ● ● ● ●● ● ●	
14.	●●●●● ●●●		29.	●● ●●● ● ●●	
15.	●●●●● ●●		30.	●● ● ●● ●● ●	

B

Number Correct: _____

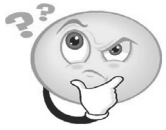
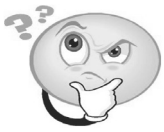
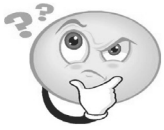
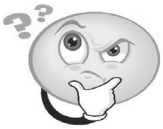
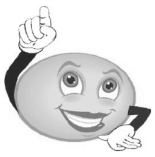
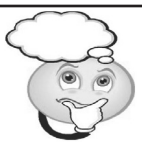
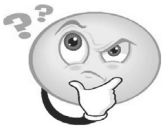
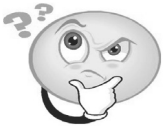
Name _____ Date _____

*Write the number of dots. Try to find ways to group the dots to make counting more efficient!

1.	●		16.	●●●●● ●●●	
2.	●●		17.	●●●●● ●●●●	
3.	●		18.	●●●●● ●●	
4.	●●●●		19.	●●●●● ●●●	
5.	●●●		20.	●●●●● ●●●●●	
6.	●●●●●		21.	●●●●● ●●●●	
7.	●●●●		22.	●●●●● ●●●●	
8.	●●●●●		23.	● ●●●● ●●●●●	
9.	●●●●● ●●		24.	●●●●● ●●●● ●	
10.	●●●●● ●		25.	●● ●●●●●	
11.	●●●●● ●●●		26.	●●● ● ●● ●●	
12.	●●●●● ●		27.	●● ●●● ●●● ●●	
13.	●●●●●		28.		
14.	●●●●● ●●		29.		
15.	●●●●● ●		30.	●● ● ●●●● ●●	

Name _____ Date _____

1. Circle the smiley face that shows your level of fluency for each activity.

Activity	I still need some practice.	I can complete, but I still have some questions.	I am numerically fluent.
a.			
b.			
c.			
d.			
e.			
f.			

2. Which activity helped you the most in becoming fluent with your facts to 10?

Name _____ Date _____

1. Teach a family member some of our counting activities. Check all the activities you do together.

   - ☐ Happy Count by ones.
   - ☐ Happy Count by tens.
   - ☐ Count by ones the Say Ten Way.
   - ☐ Count by tens the Say Ten Way. First, start at 0; then, start at 7.
   - ☐ Movement counting—count while doing squats, arm rolls, jumping jacks, etc.

2. Write the numbers from 91 to 120:

91		93							
				105					
								119	

3. Count backward by tens from 97 to 7.

   97, ____, 77, ____, ____, ____, ____, ____, ____, ____, ____.

4. On the back of your paper, write as many sums and differences within 20 as you can. Circle the ones that were a challenge for you at the beginning of the year!

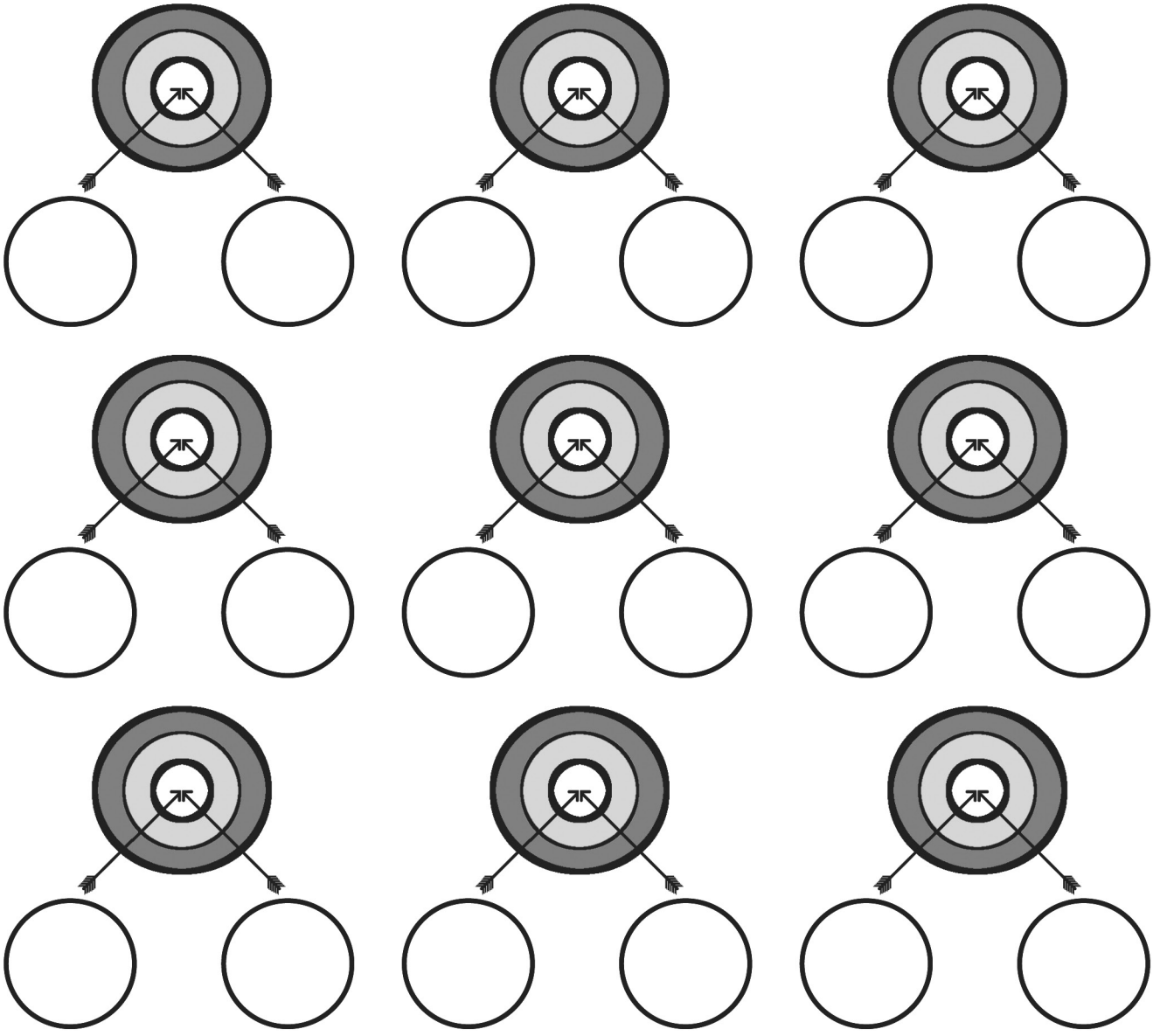
0	1	2	3
4	5	6	7
8	9	10	10
	10	5	5

numeral cards

Target Number:

Target Practice

Choose a *target number* between 6 and 10, and write it in the middle of the circle on the top of the page. Roll a die. Write the number rolled in the circle at the end of one of the arrows. Then, make a bull's-eye by writing the number needed to make your target in the other circle.



target practice

Name _____ Date _____

Race to the Top!

2	3	4	5	6	7	8	9	10	11	12

race to the top

Answer Key

GRADE 1 • MODULE 6

Place Value, Comparison, Understanding Income with Addition and Subtraction to 100

Lesson 1

Fluency Practice

Set A

1.	6	11.	8	21.	8
2.	6	12.	8	22.	9
3.	6	13.	6	23.	10
4.	6	14.	7	24.	10
5.	7	15.	8	25.	8
6.	7	16.	9	26.	7
7.	8	17.	10	27.	10
8.	7	18.	9	28.	9
9.	7	19.	9	29.	10
10.	6	20.	10	30.	9

Set B

1.	0	11.	3	21.	3
2.	6	12.	4	22.	4
3.	1	13.	5	23.	5
4.	2	14.	4	24.	6
5.	7	15.	2	25.	7
6.	1	16.	3	26.	8
7.	6	17.	4	27.	7
8.	1	18.	2	28.	6
9.	7	19.	3	29.	5
10.	2	20.	4	30.	6

Set C

1.	1	11.	3	21.	4
2.	5	12.	3	22.	4
3.	5	13.	2	23.	3
4.	1	14.	2	24.	3
5.	9	15.	3	25.	4
6.	1	16.	3	26.	4
7.	5	17.	2	27.	3
8.	5	18.	2	28.	3
9.	2	19.	3	29.	3
10.	2	20.	3	30.	3

Set D

1.	6	11.	3	21.	4
2.	5	12.	4	22.	5
3.	6	13.	6	23.	3
4.	7	14.	2	24.	4
5.	4	15.	4	25.	5
6.	5	16.	6	26.	4
7.	7	17.	5	27.	3
8.	0	18.	1	28.	2
9.	1	19.	2	29.	3
10.	3	20.	2	30.	2

Set E

1. 6
2. 4
3. 3
4. 7
5. 2
6. 7
7. 3
8. 4
9. 9
10. 5
11. 4
12. 4
13. 2
14. 2
15. 2
16. 3
17. 4
18. 2
19. 6
20. 2
21. 3
22. 5
23. 3
24. 7
25. 2
26. 7
27. 2
28. 3
29. 5
30. 3

Problem Set

1. 6
2. 6
3. 5
4. 6

Exit Ticket

5

Homework

1. 3
2. 10
3. 6
4. 4

Lesson 2

Problem Set

1. 8
2. 9
3. 4
4. 6
5. 20
6. 6

Exit Ticket

8

Homework

1. 5
2. 9
3. 11
4. 15
5. 10
6. 17

Lesson 3

Addition Sprint 1

Side A

1. 5
2. 6
3. 7
4. 7
5. 8
6. 9
7. 6
8. 7
9. 8
10. 3
11. 5
12. 9
13. 10
14. 3
15. 3
16. 7
17. 3
18. 3
19. 9
20. 4
21. 5
22. 9
23. 7
24. 2
25. 9
26. 6
27. 3
28. 6
29. 6
30. 2

Side B

1. 6
2. 7
3. 8
4. 5
5. 6
6. 7
7. 4
8. 5
9. 6
10. 3
11. 3
12. 7
13. 8
14. 3
15. 5
16. 6
17. 2
18. 2
19. 7
20. 4
21. 3
22. 9
23. 5
24. 4
25. 8
26. 3
27. 7
28. 2
29. 2
30. 3
31.
32.

Addition Sprint 2

Side A

1. 7
2. 8
3. 9
4. 7
5. 8
6. 9
7. 8
8. 8
9. 9
10. 9
11. 7
12. 7
13. 8
14. 8
15. 7
16. 9
17. 9
18. 9
19. 9
20. 8
21. 9
22. 7
23. 9
24. 9
25. 7
26. 17
27. 17
28. 9
29. 6
30. 3

Side B

1. 7
2. 8
3. 9
4. 8
5. 9
6. 9
7. 7
8. 7
9. 8
10. 8
11. 8
12. 8
13. 9
14. 9
15. 9
16. 9
17. 9
18. 9
19. 9
20. 9
21. 8
22. 7
23. 9
24. 9
25. 9
26. 19
27. 19
28. 9
29. 5
30. 4
31.
32.

Subtraction Sprint

Side A

1. 5
2. 4
3. 3
4. 9
5. 8
6. 7
7. 5
8. 6
9. 7
10. 4
11. 5
12. 7
13. 6
14. 5
15. 4
16. 6
17. 2
18. 4
19. 5
20. 4
21. 5
22. 4
23. 3
24. 3
25. 7
26. 6
27. 7
28. 6
29. 7
30. 8

Side B

1. 4
2. 3
3. 2
4. 9
5. 8
6. 7
7. 4
8. 5
9. 6
10. 3
11. 4
12. 5
13. 1
14. 2
15. 3
16. 4
17. 2
18. 5
19. 3
20. 2
21. 6
22. 3
23. 2
24. 4
25. 5
26. 4
27. 5
28. 7
29. 9
30. 7
31.
32.

Totals of 5, 6 and 7

Side A

1. 5
2. 2
3. 2
4. 3
5. 3
6. 6
7. 5
8. 5
9. 1
10. 1
11. 6
12. 4
13. 4
14. 2
15. 2
16. 6
17. 3
18. 3
19. 7
20. 2
21. 2
22. 2
23. 2
24. 1
25. 3
26. 3
27. 4
28. 4
29. 6
30. 6

Side B

1. 5
2. 1
3. 1
4. 4
5. 4
6. 9
7. 2
8. 5
9. 2
10. 5
11. 6
12. 5
13. 5
14. 1
15. 1
16. 6
17. 3
18. 3
19. 6
20. 4
21. 4
22. 2
23. 2
24. 7
25. 3
26. 3
27. 3
28. 3
29. 7
30. 8
31.
32.

Totals of 8, 9, and 10

Side A

1. 10
2. 5
3. 5
4. 10
5. 9
6. 9
7. 1
8. 1
9. 9
10. 1
11. 8
12. 1
13. 8
14. 8
15. 4
16. 8
17. 2
18. 6
19. 9
20. 2
21. 2
22. 6
23. 2
24. 9
25. 3
26. 3
27. 6
28. 6
29. 10
30. 9

Side B

1. 10
2. 9
3. 9
4. 1
5. 1
6. 8
7. 1
8. 7
9. 1
10. 7
11. 10
12. 8
13. 8
14. 2
15. 2
16. 8
17. 3
18. 5
19. 8
20. 2
21. 2
22. 9
23. 7
24. 2
25. 9
26. 4
27. 4
28. 4
29. 8
30. 8
31.
32.

Problem Set

1. 4, 3; 4, 3
2. 8, 6; 86, 8, 6
3. 7, 8; 78
4. 8, 7; 87
5. 9, 6; 96
6. 10, 0; 100
7. 7, 3; 73
8. 5, 4; 54
9. a. 4, 0
   b. 4, 6
   c. 59
   d. 95
   e. 7, 5
   f. 7, 0
   g. 6, 0
   h. 80
   i. 55
   j. 100

Exit Ticket

1. 8, 9; 89
2. a. 9, 0
   b. 87

Homework

1. 5, 2; 5, 2
2. 9, 8; 98, 9, 8
3. 9, 7; 97
4. 5, 9; 59
5. 10, 0; 100
6. 8, 6; 86
7. 6, 7; 67
8. 7, 5; 75
9. a. 7, 0
   b. 7, 6
   c. 49
   d. 94
   e. 6, 5
   f. 6, 0
   g. 9, 0
   h. 100
   i. 83
   j. 80

Lesson 4

Problem Set

1. 40, 3, 43; 43; 43
2. 40, 6, 46; 46; 46
3. 50, 7, 57; 50; 7; 57
4. 70, 5, 75; 70, 5; 75
5. 60, 8, 68; 60, 8, 68; 6, 8, 68
6. 90, 2, 92; 90, 2, 92; 9, 2, 92
7. 7, 4; 74, 70, 4; 7, 4, 74
8. 8, 6; 86, 80, 6; 8, 6, 86
9. 7, 4; 70, 4, 74; 7, 4, 74
10. 10; 100, 0, 100; 10, 0, 100
11. a. 56
    b. 80
    c. 6
    d. 89

Exit Ticket

1. 8, 9; 80, 9, 89; 8, 9, 89
2. a. 92
   b. 9

Homework

1. 70, 6, 76; 76; 76
2. 40, 5, 45; 45; 45
3. 60, 9, 69; 60, 9; 69
4. 80, 7, 87; 80, 7; 87
5. 80, 4, 84; 80, 4, 84; 8, 4, 84
6. 50, 8, 58; 50, 8, 58; 5, 8, 58
7. 5, 6; 56, 50, 6; 5, 6, 56
8. 6, 8; 68, 60, 8; 6, 8, 68
9. 7, 5; 70, 5, 75; 7, 5, 75
10. 9; 90, 0, 90; 9, 0, 90
11. a. 86
    b. 50
    c. 5
    d. 84

Lesson 5

Problem Set

1. a. 72; 74; 75; 78
   b. 85; 88; 90
   c. 92; 95; 98
   d. 101; 103; 105; 107; 108
   e. 112; 115; 118; 120
2. 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120
3. Sequence (a) circled; 107, 108, 109, 110, 111
4. a. 117, 118, 119
   b. 116, 117, 119
   c. 102, 103
   d. 99, 100, 101, 102

Exit Ticket

1. a. 89
   b. 98; 100
   c. 109; 110
   d. 118; 120
2. a. 118; 120
   b. 110, 111, 112

Homework

1. a. 72; 73; 75; 76; 77; 78
   b. 81; 83; 84; 86; 88; 89
   c. 92; 94; 95; 97; 98; 100
   d. 101; 103; 104; 106; 107; 109
   e. 112; 113; 115; 117; 118; 120
2. 100, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120
3. Sequence (b) circled; 96, 97, 98, 99, 100, 101
4. a. 115, 116, 117
   b. 117, 118, 119
   c. 103, 104, 105
   d. 90, 91, 92, 93

Lesson 6

Problem Set

1. a. 7, 4
   b. 7, 8
   c. 91
   d. 109
   e. 11, 6
   f. 10, 3
   g. 112
   h. 120
   i. 105
   j. 10, 2

2. a. 9 tens 7 ones
   b. 10 tens 7 ones
   c. 110
   d. 10 tens 5 ones
   e. 101
   f. 12 tens 0 ones
   g. 11 tens 8 ones

Exit Ticket

1. a. 8, 3
   b. 94
   c. 115
   d. 10, 6

2. a. 102
   b. 114

Homework

1. a. 8, 1
   b. 9, 8
   c. 117
   d. 108
   e. 10, 4
   f. 11, 1
2. a. 92
   b. 84
   c. 113
   d. 109
   e. 101
   f. 116

3. a. 102
   b. 9 tens 5 ones
   c. 11 tens 4 ones
   d. 11 tens 0 ones
   e. 108
   f. 10 tens 0 ones
   g. 11 tens 8 ones

Lesson 7

Problem Set

1. 64 = 60 + 4 ||||||| °°°°

   117 = 100 + 10 + 17 ☐ | °°°°°°°

   102 = 100 + 2 ☐ °°

   94 = 90 + 4 ||||||||| °°°°

2. 109 = 100 + 9

   48 = 40 + 8

   92 = 90 + 2

   38 = 30 + 8

3. Color the first and third boxes (94 and 90 + 4)
4. Color the third and fourth boxes (☐ °° and 102)
5. 112, 100 + 10 + 2
6. 44, 40 + 4

Exit Ticket

119 ☐ | °°°°° °°°° 100 + 10 + 9

89 |||||||| °°°°° °°°° 80 + 9

102 ☐ °° 100 + 2

118 = 100 + 10 + 8 40 + 5 = 45 110 = 100 + 10

Homework

61 ||||||°

109 □ °°°°° °°°°

88 |||||||| °°°°° °°°

113 □ | °°°

102 = 100 + 2

64 = 60 + 4

46 = 40 + 6

120 = 100 + 20

Lesson 8

Sprint

Side A

1.	6	11.	28	21.	39
2.	16	12.	18	22.	29
3.	26	13.	8	23.	19
4.	15	14.	19	24.	1
5.	25	15.	29	25.	10
6.	35	16.	39	26.	10
7.	7	17.	10	27.	1
8.	17	18.	20	28.	24
9.	27	19.	30	29.	24
10.	37	20.	40	30.	34

Side B

1.	5	11.	27	21.	39
2.	15	12.	17	22.	29
3.	25	13.	7	23.	19
4.	16	14.	18	24.	1
5.	26	15.	28	25.	10
6.	36	16.	38	26.	10
7.	6	17.	10	27.	1
8.	16	18.	20	28.	29
9.	26	19.	30	29.	29
10.	36	20.	40	30.	39

Problem Set

1. 9, 8; 98
2. 10, 8; 108
3. 11, 8; 118
4. 10, 5; 105
5. 11, 6; 116
6. a. 11, 9; 119
   b. Answers will vary; picture represents 119.
7. a. 12, 0; 120
   b. Answers will vary; picture represents 120.
8. 109; 10 quick tens and 9 ones drawn
9. 120; 12 quick tens drawn

Exit Ticket

1. 11, 8; 118
   Answers will vary; picture represents 118.
2. a. 110; 11 quick tens drawn
   b. 101; 10 quick tens and 1 one drawn

Homework

1. 9, 6; 96
2. 10, 6; 106
3. 11, 6; 116
4. 10, 9; 109
5. 12, 0; 120
6. 10, 7; 107
7. 11, 0; 110
8. 110; 11 quick tens drawn
9. 105; 10 quick tens and 5 ones drawn

Lesson 9

Problem Set

1. a. (Answers will vary; they must be greater than 81.)
   b. (Answers will vary; they must be greater than 104.)
2. a. (Answers will vary; they must be less than 120.)
   b. (Answers will vary; they must be less than 51.)
3. (Answers will vary; they must be fewer than 76.)
4. (Answers will vary; they must be greater than 114.)
5. (Answers will vary; they must be greater than 50.)

Exit Ticket

1. a. 112
   b. (Answers will vary; they must be less than 112.)
2. (Answers will vary; they must be more than 53.)
3. (Answers will vary. First answer must be less than 98 and second answer must be more than 98.)

Homework

1. (Answers will vary; they must be greater than 103.)
2. a. 64
   b. (Answers will vary; they must be less than 64.)
3. (Answers will vary. First answer must be less than 110 and second answer must be more than 110.)

Lesson 10

Problem Set

1. 2nd set is circled (72).
2. 2nd set is circled (104).
3. 1st set is circled (101).
4. 2nd set is circled (72).
5. 2nd set is circled (114).
6. 70
7. Germaine baked 104 cookies.
8. Reagan (Drawings may vary.)

Exit Ticket

1. 115 is **equal to** 115.
2. 60 is **less than** 90.
3. 100 is **more than** 76.

Homework

1. 1st set is circled (64).
2. 2nd set is circled (110).
3. 39
4. Grace read for **107** minutes.

Lesson 11

Sprint

Side A

1.	6	11.	28	21.	39
2.	16	12.	18	22.	29
3.	26	13.	8	23.	19
4.	15	14.	19	24.	1
5.	25	15.	29	25.	10
6.	35	16.	39	26.	10
7.	7	17.	10	27.	1
8.	17	18.	20	28.	24
9.	27	19.	30	29.	24
10.	37	20.	40	30.	34

Side B

1.	5	11.	27	21.	39
2.	15	12.	17	22.	29
3.	25	13.	7	23.	19
4.	16	14.	18	24.	1
5.	26	15.	28	25.	10
6.	36	16.	38	26.	10
7.	6	17.	10	27.	1
8.	16	18.	20	28.	29
9.	26	19.	30	29.	29
10.	36	20.	40	30.	39

Problem Set

1. 88, 91, 109, 112
2. a.

Hundreds	Tens	Ones
1	2	0
	7	1
	2	8
1	0	2

   b. 28, 71, 102, 120

3. a. (Answers may vary slightly.)
   b. 72, 96, 105, 111
4. a. (Numbers 60, 70, 80, 90, and 100 are listed in order under hash marks.)
   b. (Answers may vary slightly.)
   c. 65, 84, 91, 97

Exit Ticket

1. 88, 91, 102, 111
2. a. (Answers may vary slightly.)
   b. 88
   c. 101
   d. 88, 96, 101, 115

Homework

1.

Hundreds	Tens	Ones
1	2	0
	6	4
	5	0
	9	1

   a. 50
   b. 120
   c. 50, 64, 91, 120
2. a. (Answers may vary slightly.)
   b. 51, 65, 70, 88

Lesson 12

Problem Set

1. a. 69
   b. 78
   c. 61
   d. 69
2. a. 69
   b. 58
   c. 109
   d. 98
3. a. 11
   b. 71
   c. 77
   d. 80
   e. 102
4. a. 20
   b. 70
   c. 71
   d. 88
   e. 113
5. a. 11
   b. 51
   c. 50
   d. 79
   e. 119
6. a. 10
   b. 50
   c. 64
   d. 71
   e. 110
7. a. 43
   b. 86
   c. 70
   d. 64
   e. 70
   f. 50
   g. 75
   h. 79
   i. 111
   j. 90

Exit Ticket

1. a. $69 \xrightarrow{-1} 68$
   b. $69 \xrightarrow{+10} 79$
2. a. 41
   b. 87
   c. 101
3. a. 60
   b. 72
   c. 106
4. a. 74
   b. 69
   c. 109
5. a. 70
   b. 80
   c. 94

Homework

1. a. 89, one ten stick drawn
   b. 102, one ten stick crossed out
   c. 80, one unit cube drawn
   d. 79, one unit cube crossed out
2. a. $75 \xrightarrow{+10} 85$
   b. $75 \xrightarrow{+1} 76$
   c. $101 \xrightarrow{+1} 102$
   d. $101 \xrightarrow{-10} 91$
3. a. 41
   b. 51
   c. 66
   d. 70
   e. 111
4. a. 60
   b. 80
   c. 87
   d. 99
   e. 120
5. a. 52
   b. 72
   c. 70
   d. 79
   e. 106
6. a. 40
   b. 50
   c. 74
   d. 81
   e. 97
7. a. 53
   b. 76
   c. 60
   d. 84
   e. 90
   f. 70
   g. 77
   h. 69
   i. 103
   j. 114, 116

Lesson 13

Problem Set

1. a. <
   b. <
   c. >
   d. >
   e. <
   f. >
   g. =
   h. =
2. a. Is equal to; 29 = 29
   b. Is less than; 79 < 80
   c. Is greater than; 100 > 10
   d. Is less than; 61 < 66
3. a. <
   b. >
   c. =
   d. =
   e. =
   f. =
   g. =
   h. <

Exit Ticket

a. Is less than; 36 < 63
b. Is greater than; 90 > 89
c. Is equal to; 52 = 52
d. Is less than; 42 < 44

Homework

1. a. >
   b. <
   c. >
   d. =
   e. <
   f. <
   g. =
   h. <
2. a. Is greater than; 42 > 12
   b. Is equal to; 67 = 67
   c. Is less than; 37 < 73
   d. Is greater than; 34 > 24
   e. Is less than; 59 < 95

Lesson 14

Problem Set

1. 23
2. 37
3. 51
4. 73
5. 30 + 9 = 39 OR 39 = 30 + 9
6. 44
7. 81
8. 32

Exit Ticket

1. 48
2. 67
3. 26

Homework

1. 35
2. 52

Lesson 15

Problem Set

1. a. 2, 4, **6**, 8, 10
   b. 46, 48, **50**, 52, 54
   c. 58, **60**, 62, 64, 66
   d. 84, **86**, **88**, 90
   e. 94, 96, 98, **100**, **102**
   f. 106, **108**, 110, **112**, 114
2. I counted 48 eyes.
3. I counted 46 animals.

Exit Ticket

1. 50, 52, **54**, 56, **58**, **60**, 62, 64, **66**, 94, 96, 98, 100, 102, 104, 106, 108, 110
2. I counted 56 socks.

Homework

12, 18, 24, 32, 36, 50, 62, 68, 74, 80, 88, 92, 102, 104, 108, 110, 112, 116, 118, 120

Lesson 16

Problem Set

1. a. 5, 10, **15**, 20, 25
   b. 40, 45, **50**, 55, 60
   c. 50, **55**, 60, 65, **70**
   d. 75, **80**, **85**, 90, **95**
   e. 90, 95, **100**, **105**
   f. 100, 105, **110**, **115**, **120**
2. I counted 90 cents.
3. I counted 40 faces.

Exit Ticket

1. 50, 55, **60**, 65, **70**, **75**, 80, 85, **90**, **85**, 90, 95, **100**, **105**, 110, 115, **120**
2. I counted 110 toes.

Homework

15, 30, 35, 50, 55, 70, 75, 80, 95, 105, 110, 115, 120

Lesson 17

Problem Set

1. a. 10, **20**, 30, **40**
   b. 30, 40, 50, **60**, **70**
   c. **60**, 70, **80**, 90
   d. 90, 100, **110**, **120**
2. I counted 120 fingers.
3. I counted 60 birds.

Exit Ticket

1. 50, 60, **70**, **80**, 90, 100, **20**, **30**, 40, **50**, **60**, 70, **80**
2. I counted 90 crab legs.

Homework

10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120

10, 20, **30**, 40, 50, **60**, **70**, 80, 90, **100**, **110**

Lesson 18

Problem Set

1. a. Dime
   b. Penny
   c. Nickel
2. a. 9 pennies drawn
   b. 4 pennies drawn
3. Hand with 2 dimes crossed off
4. 2 nickels drawn; 1 nickel and 5 pennies drawn
5. Not correct; 3 cents is less than 5 cents.

Exit Ticket

1. a. Matched with the nickel
   b. Matched with the dime
2. 5 pennies drawn

Homework

1. Coins appropriately matched
2. a. 2 pennies crossed off
   b. 7 pennies crossed off
3. 1 nickel drawn; 5 pennies drawn
4. a. 20; line drawn to 2 dimes
   b. 5; line drawn to 1 nickel
   c. 10; line drawn to 1 dime
   d. 1; line drawn to 1 penny

Lesson 19

Problem Set

1. a. 25 pennies drawn
   b. Answers will vary.
   c. Answers will vary.
   d. Answers will vary.
   e. 5 nickels drawn
   f. 1 quarter drawn
2. a. Quarters
   b. Pennies
   c. Dimes
   d. Nickels
3. Answers will vary.
4. a. Matched with nickel
   b. Matched with dime
   c. Matched with quarter

Exit Ticket

a. Nickel
b. Penny
c. Quarter
d. Dime

Homework

1. a. Penny
   b. Dime
   c. Quarter
   d. Nickel
2. a. 10
   b. 1
   c. 5
   d. 25
3. Answers will vary.
4. a. Answers will vary.
   b. Answers will vary.

Lesson 20

Problem Set

1. a. Penny
   b. Dime
   c. Quarter
   d. Nickel
2. a. Matched with dime
   b. Matched with nickel
   c. Matched with quarter
3. Hand with the nickel crossed off
4. Not correct; answers may vary
5. a. 5, matched with nickel
   b. 10, matched with dime
   c. 25, matched with quarter
   d. 1, matched with penny

Exit Ticket

Both sides of coins appropriately matched with name

Homework

1. a. 5, matched with nickels
   b. 10, matched with dimes
   c. 25, matched with quarters
   d. 1, matched with pennies
2. Answers will vary.
3. Answers will vary.

Lesson 21

Problem Set

1. a. 3 pennies drawn
   b. 5 pennies drawn
   c. 4 pennies drawn
   d. 5 pennies drawn

2. a. 13 cents
   b. 12 cents
   c. 30 ¢
   d. 34 ¢
   e. 31 ¢

Exit Ticket

a. 4 pennies drawn
b. 4 pennies drawn

Homework

1. a. 5 pennies drawn
   b. 3 pennies drawn
   c. 7 pennies drawn
   d. 7 pennies drawn

2. a. 22 cents
   b. 15 cents
   c. 27 ¢
   d. 31 ¢
   e. 32 ¢

Lesson 22

Problem Set

1. a. 3, 2; 30¢ + 2¢ = 32¢
   b. 12, 0; 120¢ + 0¢ = 120¢
   c. 11, 4; 110¢ + 4¢ = 114¢
2. a. 8 dimes checked; 8, 0
   b. 10 dimes checked; 10, 0
3. Five dimes and eight pennies drawn; 5, 8

Exit Ticket

4; 40¢ + 4¢ = 44¢

Homework

1. a. 2, 1; 20¢ + 1¢ = 21¢
   b. 11, 0; 110¢ + 0¢ = 110¢
   c. 11, 3; 110¢ + 3¢ = 113¢
2. 11 dimes checked; 11, 0
3. a. 7 dimes and 9 pennies drawn; 7, 9
   b. 11 dimes and 8 pennies drawn; 11, 8

Lesson 23

Problem Set

1. line drawn from 1 penny to 1 penny
   line drawn from 1 nickel to 5 pennies
   line drawn from 1 dime to 1 nickel and 5 pennies
   line drawn from 1 quarter to 2 dimes and 1 nickel
2. 26 cents
3. 50 cents
4. 48 cents

Exit Ticket

1. (First problem is done as an example.)
2. Answers will vary, total should equal 42 cents
3. Answers will vary, total should equal 75 cents

Homework

1. Circle 4 nickels and 4 pennies
2. Answers will vary, total should equal 45 cents

Lesson 24

Problem Set

1. Line drawn from 5 dimes, 2 nickels to 60 ¢
   Line drawn from 4 dimes, 2 nickels to 50 ¢
   Line drawn from 3 dimes, 1 nickel, 5 pennies to 40 ¢
2. Circled the set with 2 dimes, 1 nickel, 5 pennies and the set with 6 nickels.
3. Answers may vary. Coins need to equal 30 cents.

Exit Ticket

Color the box with 2 quarters. Color the box with 4 dimes and 2 nickels.

Answers may include (but are not limited to):

- 1 quarter, 2 dimes, 1 nickel
- 5 dimes
- 10 nickels

Homework

1. Circle 6 dimes and 4 pennies.
2. Circle 4 dimes, 2 nickels, and 3 pennies.
3. 34 ¢

Lesson 25

Problem Set

1. Income
2. Gift
3. Gift
4. Income
5. Circle milk, cake, vegetables, soap. Underline dentist, babysitter, doctor, bus ride.
   Color either dentist, babysitter, doctor, or bus ride.
   Color cake.
6. $8
   $7
7. $13
   $5

Exit Ticket

1. Save
2. Spend
3. Spend
4. Circle teach.
5. Draw a picture of a good that can be bought for about $12 or less.
6. Draw a picture of a service that could be bought for about $20 or less.

Homework

1. Income
2. Gift
3. Circle vegetables and toothpaste.
4. Circle haircut and dentist.

Lesson 26

Problem Set

Answers may vary. Accept answers with appropriate rationale.

1. a. Need
   b. Want
   c. Need
   d. Need
   e. Want
   f. Need
2. 18
3. 9
4. phone repair; $4

Exit Ticket

1. Clothing is circled.
2. Guitar is circled.

Homework

1. a. Want
   b. Need
   c. Need
   d. Want
   e. Want
   f. Need
2. 15
3. 15

Lesson 27

Problem Set

1. 11
2. 5
3. 5
4. 10
5. 13

Exit Ticket

1. 8

Homework

1. 9
2. 7
3. 5
4. 5
5. 16

Lesson 28

Problem Set

1. 10
2. 10
3. 14
4. 13
5. 7
6. 7

Exit Ticket

4

Homework

1. 10
2. 10
3. 14
4. 15
5. 6
6. 8

Lesson 29

Problem Set

1. 6
2. 19
3. 2
4. 12
5. 17
6. 6

Exit Ticket

17

Homework

1. 7
2. 17
3. 6
4. 18
5. 11
6. 18

Lesson 30

Problem Set

1. 4
2. 11
3. 6
4. 7
5. 18
6. 5

Exit Ticket

12

Homework

1. 4
2. 8
3. 7
4. 6
5. 8
6. 13

Lesson 31

Sprint

Side A

1. 2	11. 5	21. 9
2. 3	12. 4	22. 10
3. 4	13. 6	23. 9
4. 3	14. 8	24. 8
5. 1	15. 7	25. 10
6. 4	16. 9	26. 7
7. 5	17. 8	27. 10
8. 4	18. 10	28. 9
9. 6	19. 7	29. 8
10. 7	20. 6	30. 10

Side B

1. 1	11. 8	21. 9
2. 2	12. 6	22. 10
3. 1	13. 5	23. 10
4. 4	14. 7	24. 10
5. 3	15. 6	25. 7
6. 5	16. 8	26. 8
7. 4	17. 9	27. 10
8. 5	18. 7	28. 9
9. 7	19. 8	29. 9
10. 6	20. 10	30. 9

Problem Set

1. Answers will vary.
2. Answers will vary.

Homework

1. All boxes checked
2. 92, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 120
3. 87, 67, 57, 47, 37, 27, 17, 7
4. Answers will vary.

ISBN 979-8-89072-145-7

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Printed in the USA

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