

 Amplify Desmos Math CALIFORNIA

Kindergarten

Volume 2: Units 5–7

Student Edition

About Amplify

Amplify is dedicated to collaborating with educators to create learning experiences that are rigorous and riveting for all students. Amplify creates K–12 core and supplemental curriculum, assessment, and intervention programs for today’s students.

A pioneer in K–12 education since 2000, Amplify is leading the way in next-generation curriculum and assessment. All of our programs provide teachers with powerful tools that help them understand and respond to the needs of every student.

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Amplify gratefully acknowledges the work of distinguished program advisors from English Learners Success Forum (ELSF), who have been integral in the development of Amplify Desmos Math. ELSF is a 501(c)(3) nonprofit organization whose mission is to expand educational equity for multilingual learners by increasing the supply of high-quality instructional materials that center their cultural and linguistic assets.

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Hello Curious Mind,

Welcome to Kindergarten!

Our world is filled with math, and you are a mathematician! Mathematicians are people who do math — and that's you!

As a mathematician, you will get to explore, build, play, and solve problems.

You'll also learn how to use lots of different math tools and work together with your classmates.

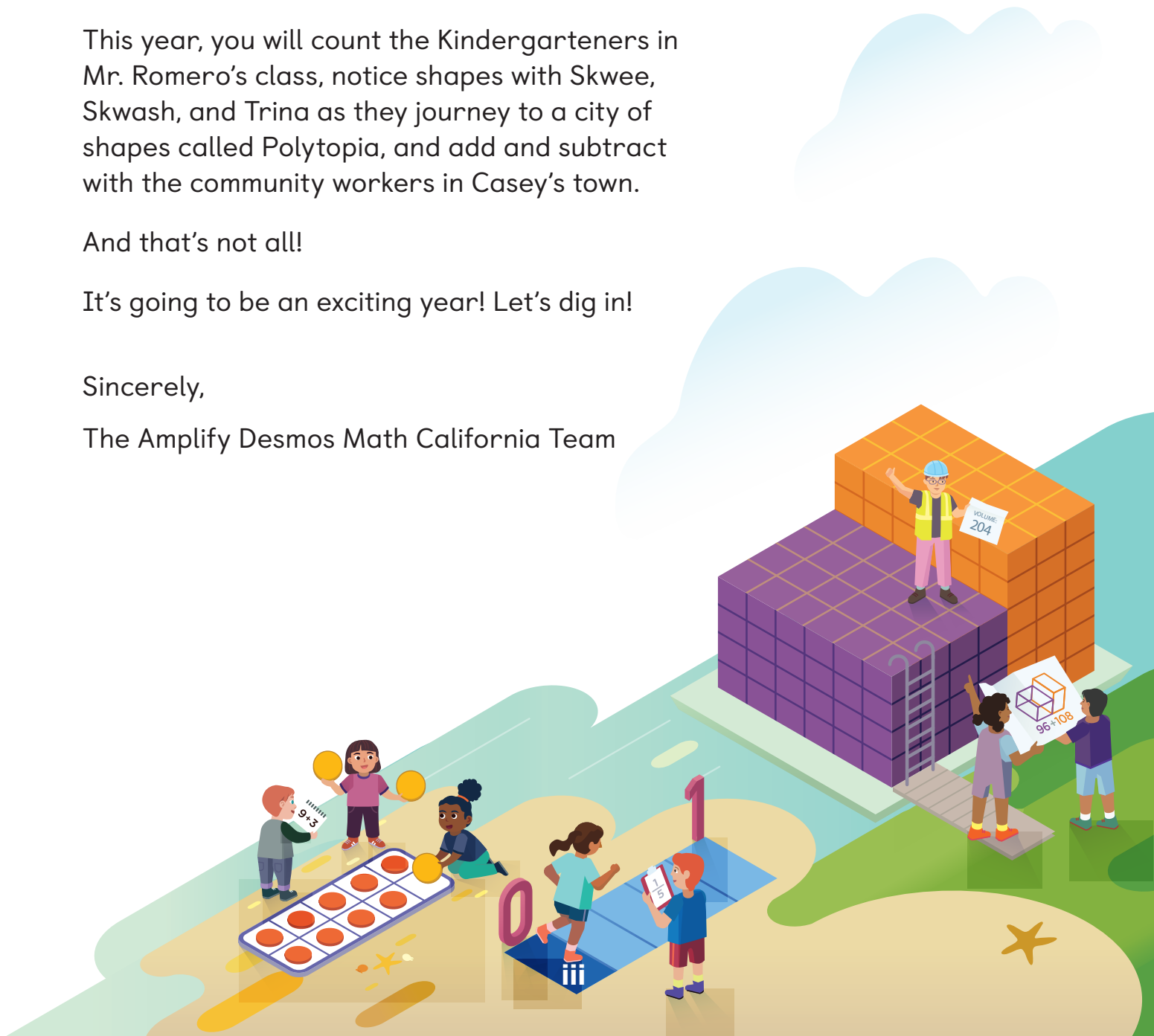
This year, you will count the Kindergarteners in Mr. Romero's class, notice shapes with Skwee, Skwash, and Trina as they journey to a city of shapes called Polytopia, and add and subtract with the community workers in Casey's town.

And that's not all!

It's going to be an exciting year! Let's dig in!

Sincerely,

The Amplify Desmos Math California Team



Unit 1 Math in Our World

Let’s learn about the tools we can use for math this year.

Unit Story: The First Day of School In this story, students notice and wonder about mathematical situations and express how they feel about their first day of school.



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New Africa/Shutterstock.com

Sub-Unit 1 Exploring Math Tools	5
1.01 Connecting Cubes	6
1.02 Pattern Blocks	7
1.03 Solid Shapes	8
1.04 Counters and 5-Frames	9
1.05 Math Tools	10



myboys.me/Shutterstock.com

Sub-Unit 2 Recognizing Quantities	11
1.06 Skye’s Style	12
1.07 Matching Groups	13
1.08 Packing Up School Supplies	14
1.09 Skye Goes Shopping	15
1.10 Designing Shoes With Skye	16
1.11 Are There Enough?	17
1.12 Getting Enough	18




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Sub-Unit 3 Figuring Out How Many	19
1.13 Sara Helps Out	20
1.14 Counting in the Cafeteria	21
1.15 Charlie Helps Coach Kelley	22
1.16 Ms. Khan’s Book Baggies	23
1.17 Principal Mack’s Problem	24
1.18 Sharing More About You	25

Unit 2 Numbers 1–10

Let's count and create groups and compare numbers up to 10.

 **Unit Story: What's in a Restaurant?** In this story, 5 kids and their families dine at different restaurants in their town where they see different groups and numbers.




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Sub-Unit 1 Counting and Comparing Objects 29

 2.01	Explore: Cafeteria Math	30
2.02	Fingers as Math Tools	32
2.03	Moving and Grooving	37
2.04	More, Fewer, or the Same	42
2.05	Fingers and Counters	47
2.06	Comparing Words	52



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Sub-Unit 2 Counting and Comparing Images 57

2.07	Seats at the Table	58
2.08	Preparing the Tables	63
2.09	Fingers and 5-Frames	70
2.10	Forest Friends	75
2.11	Drawing Groups	82



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Sub-Unit 3 Connecting Quantities and Numbers 87

2.12	Which Number Is It?	88
2.13	That Number Looks Different	94
2.14	Showing Numbers	99
2.15	Drawing Numbers	104
2.16	How Many?	109



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Sub-Unit 4 Comparing Numbers 115

2.17	Cooking Tools	116
2.18	What's Missing?	121
2.19	Numbers, Lots of Ways	126
2.20	Two Ways to Compare	131
2.21	More or Less	137
2.22	Selling Smoothies	142

Unit 3 Flat Shapes All Around Us

Let's describe and compare flat shapes. Let's put together small shapes to make larger shapes.




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Unit Story: A Great Shape Adventure In this story, shapeless globs journey out to find the city of Polytopia. Along the way, they face different obstacles that challenge them to help each other and discover who they truly are.



KYTan/Shutterstock.com

Sub-Unit 1 Exploring Shapes in Our Community 153

 3.01	Explore: Shapes Challenge	154
3.02	What We Know About Shapes	156
3.03	Which Shapes Match?	161
3.04	Comparing Shapes	167
3.05	So Much Sorting	173
3.06	What's That Shape Called?	178
3.07	Another Shape	183
3.08	Building Shapes With Straws	188
3.09	Polytopia's Annual Kite Festival	193
3.10	Points and Lines	198
3.11	Shapes Are Everywhere	204



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Sub-Unit 2 Putting Shapes Together 211

3.12	Putting Shapes Together	212
3.13	Pieces of a Puzzle	217
3.14	Different Designs	222
3.15	Thinking About Location	227
3.16	Quilts From Around the World	232

Unit 4 Understanding Addition and Subtraction

Let's explore addition and subtraction in story problems.

Unit Story: Casey's Town In this story, Casey learns about the different people who work in her community, including the librarian, bus driver, mail carrier, grocer, waste collector, and park ranger.



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Sub-Unit 1 Counting to Add and Subtract 241

4.01	Explore: Casey's Town	242
4.02	How Many Objects?	244
4.03	How Many Objects in Pictures?	250
4.04	How Will You Count?	256
4.05	What Does It Mean to Add?	262
4.06	What Does It Mean to Subtract?	269
4.07	The Bus Depot	276



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Sub-Unit 2 Representing and Solving Story Problems 283

4.08	Math Stories	284
4.09	A Trip to the Grocery Store	289
4.10	More Grocery Store Stories	294
4.11	The Mail Carrier	299
4.12	One Story, Two Drawings	306
4.13	Trash Day	311
4.14	Our Story Problems	316



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Sub-Unit 3 Addition and Subtraction Expressions 323

4.15	Exploring Expressions	324
4.16	Expressions and Story Problems	329
4.17	Expressions and Drawings	336
4.18	What Is the Value?	343
4.19	Casey Cleans the Park	350
4.20	Show and Tell	357

Unit 5 Make and Break Apart Numbers Within 10

Let's explore putting together and breaking apart numbers.



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Unit Story: Where Is Harry? In this story, a Kindergarten class discovers that their class pet, Harry the Hamster, has escaped. Together, they pursue Harry, looking for clues he left behind.



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Sub-Unit 1 Making and Breaking Apart Numbers Within 9	365
5.01 Explore: Mystery Number	366
5.02 Making and Breaking Apart Numbers	368
5.03 Snapping Cubes	374
5.04 Equations and Drawings	381
5.05 Harry Explores the Ocean	386



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Sub-Unit 2 More Types of Story Problems	393
5.06 At the Playground	394
5.07 In the Cafeteria	399
5.08 In the Library	404
5.09 In the School Office	411
5.10 In the Teachers' Lounge	418



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Sub-Unit 3 Making and Breaking Apart 10	425
5.11 Harry Is Home	426
5.12 Equations That Show 10	433
5.13 Harry's Hamster Wheel	440
5.14 Harry Explores Space	446
5.15 Showing What We Know About 10	453

Unit 6 Numbers 0–20

Let's show numbers 11–19 in different ways and count up to 20.

Unit Story: Winners In this story, Sara cheers on her sister, Elise, and her soccer team. In practice and in the game, there are groups of teen numbers all around.



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Sub-Unit 1 Counting Teen Numbers 461

6.01 Explore: Packing Snacks 462
6.02 Getting Ready for the Game 464
6.03 How Many on the Field? 469
6.04 Pass, Shoot, Score 474
6.05 Jersey Jam! 479
6.06 People at the Park 486



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Sub-Unit 2 10 Ones and Some More 493

6.07 After the Game 494
6.08 Group Photos 499
6.09 Persistent Practice 504
6.10 Making Equations True 511
6.11 Organizing Jerseys 517

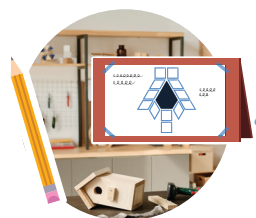
Unit 7 Solid Shapes All Around Us

Let's describe and compare solid shapes. Let's review adding and subtracting.



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Unit Story: Everyone Needs Help In this story, River makes and repairs things made of solid shapes to help community members solve problems.



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Sub-Unit 1 Exploring Solid Shapes	527
7.01 Explore: River's Project	528
7.02 Solid Shapes Around Us	530
7.03 Heavier or Lighter?	535
7.04 Which Can Hold More?	540
7.05 Sorting Solid Shapes	545
7.06 What's That Shape?	550
7.07 Building Solid Shapes	556
7.08 Putting Solid Shapes Together	561



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Sub-Unit 2 Adding and Subtracting With Shapes	567
7.09 Building Birdhouses	568
7.10 Tall Towers	575
7.11 Comparing Groups of Shapes	580
7.12 Let's Keep the Ball Bowling	585
7.13 Shapes and Equations	592
7.14 Showing and Solving Shape Stories	599
7.15 Subtracting Shapes	606
7.16 Shape Robots	612

Unit 5

Make and Break Apart Numbers Within 10

Big Ideas in This Unit

CC1 Sort and Describe Data CC2 How Many?

CC3 Being Flexible Within 10 Model With Numbers

Questions for Investigation

- How can we put together and break apart numbers?
- How can we solve story problems about adding?
- How can equations show the parts that make a number?

Unit Story: Where Is Harry?

In this story, a Kindergarten class discovers that their class pet, Harry the Hamster, has escaped. Together, they pursue Harry, looking for clues he left behind.



Explore: Mystery Number

How can we use clues to figure out what the mystery object looks like?



Watch Your Knowledge Grow

This is the math you'll explore in this unit. Rate your understanding to see how your knowledge grows!

— —
 Not yet Almost I got it!

I can . . .	Before	After
Put together and break apart numbers.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Break apart numbers in more than 1 way.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Notice patterns when I break apart numbers.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Solve story problems in more than 1 way.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Solve word problems using addition.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Solve word problems using subtraction.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Use a 10-frame to solve.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Match representations to equations.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Start with a number and figure out how many more I need to make 10.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>

Making and Breaking Apart Numbers Within 9

✦ Unit Story: Where Is Harry?




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While searching for Harry, the students found a group of crayons.

What do you think about when you break a group into 2 parts?

Name _____

Being Flexible Within 10  Building Toward K.OA.3, SMP.1, SMP.6


Explore: Mystery Number

How can we use clues to figure out what the mystery object looks like?



Warm-Up



 eyes on teacher



We are a math community.
How did the class work together to find Harry?

Discuss  What do you notice? What do you wonder?





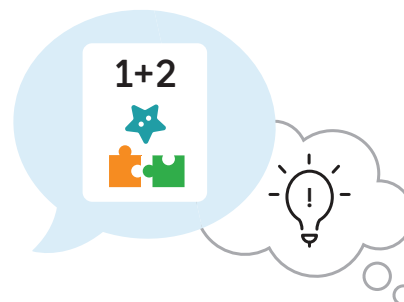
Ways to be a mathematician

- 1 I can take my time to think about a challenging problem before trying to solve it.



Not yet Almost I got it!

- 2 I can work carefully and try to be clear when I share my ideas.



Not yet Almost I got it!

Name _____

Being Flexible Within 10  K.OA.3, SMP.6, SMP.7

Making and Breaking Apart Numbers

Let's put together and break apart numbers.

6



We are a math community.
What did you notice about how the students in Mr. Romero's math class worked together?

Warm-Up



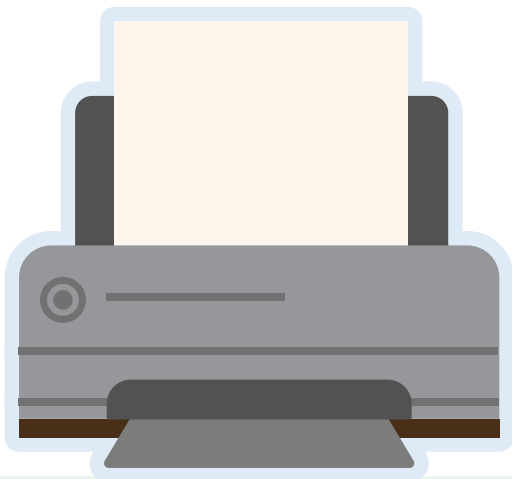
eyes on teacher

Activity

1

7 Pattern Blocks

Hands-On 



Directions: Create an object using 7 pattern blocks of triangles and squares. Draw a picture of the object and write numbers to show how many of each shape you used. Tell your partner how many triangles you used, how many squares you used, and how many pattern blocks you have altogether.

7 Pattern Blocks (continued)

1

Draw



2

Discuss

- I used _____ green triangles.
- I used _____ orange squares.
- I used _____ pattern blocks altogether.

Directions: Create an object using 7 pattern blocks of triangles and squares. Draw a picture of the object and write numbers to show how many of each shape you used. Tell your partner how many triangles you used, how many squares you used, and how many pattern blocks you have altogether.

6 Connecting Cubes

Hands-On 

3

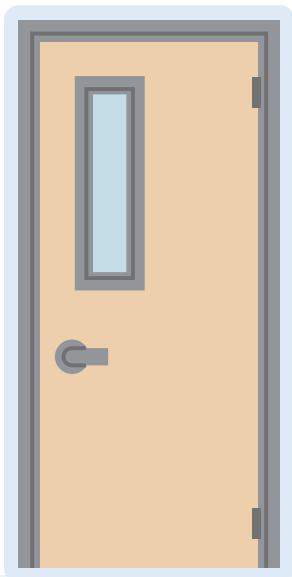
Discuss



- I broke _____ cubes apart.
- The part in my hand has _____ cubes.
- The part on my desk has _____ cubes.

4

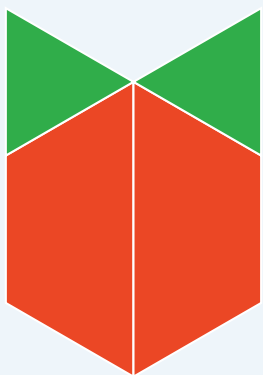
expression:



Directions: Break your cube tower into **2 parts**. Put 1 part in your hand and 1 part on your desk. Then tell your partner how many cubes you have in total and how many are in each part. Fill in the expression to show how many cubes are in each part.

Summary 5.02

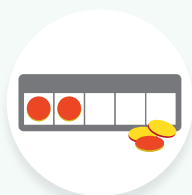
When you break a number into 2 groups, or *parts*, the total number stays the same.



When I move the blocks apart, there are still 4.

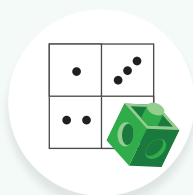
Practice 5.02

Choose from these Centers.



5-Frames

Stage 1



Rolling for
Numbers

Stage 2



Shake and Spill

Stage 3

Name _____

1 Discuss 

- I have _____ objects in all.
- The part on my paper has _____ objects.
- The part in my hand has _____ objects

2



Show your thinking.

3

expression:

$$\begin{array}{ccc} \text{---} & & \text{---} \\ \text{---} & + & \text{---} \\ \text{---} & & \text{---} \end{array}$$

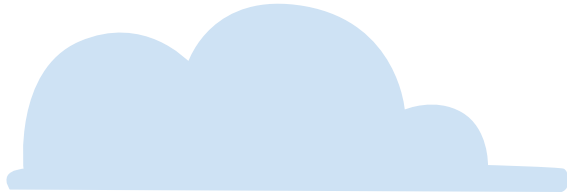
Directions:

- 1–2. Gather 8 objects. Put some on your paper and some in your hand. Tell and show how many are in each part.
3. Fill in the expression to show how many objects are in each part.

Spiral Review

 Draw

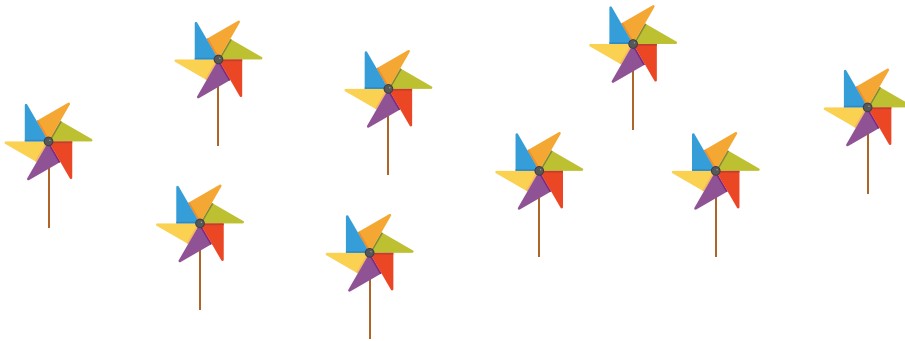
4



5



6



Directions:

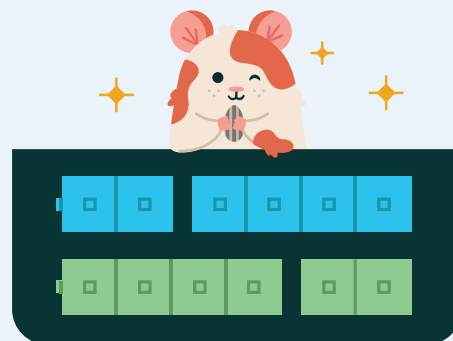
- 4. Draw 3 raindrops *below* the cloud.
- 5. Draw a sun *above* the cloud.
- 6. Write the number that tells how many.

Name _____

Being Flexible Within 10 K.OA.3, SMP.4, SMP.6

Snapping Cubes

Let's break numbers apart in more than 1 way.



Warm-Up



eyes on teacher



I am a doer of math.

How do you feel when you figure out a math problem?

Activity

1

What's Behind My Back?



Show your thinking.

1

expression:

_____ + _____

2

expression:

_____ + _____

Directions: Make a tower of 7 cubes. Break the tower into 2 parts. Color the cubes using 2 different colors to show how you broke apart the tower. Then fill in the addition expression.

What's Behind My Back? (continued)



Show your thinking.

3

expression:

_____	_____
-----	-----
_____	_____

4

expression:

_____	_____
-----	-----
_____	_____

5

expression:

_____	_____
-----	-----
_____	_____

Directions: Make a tower of 7 cubes. Break the tower into 2 parts. Color the cubes using 2 different colors to show how you broke apart the tower. Then fill in the addition expression.

More Than 1 Way

6



Show your thinking.

Number	One way	Another way
4	$\begin{array}{ccc} \underline{\quad} & & \underline{\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad} & & \underline{\quad} \end{array}$	$\begin{array}{ccc} \underline{\quad} & & \underline{\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad} & & \underline{\quad} \end{array}$
9	$\begin{array}{ccc} \underline{\quad} & & \underline{\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad} & & \underline{\quad} \end{array}$	$\begin{array}{ccc} \underline{\quad} & & \underline{\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad} & & \underline{\quad} \end{array}$

Directions: For each number, show **2** different ways to break the number into 2 parts. Show your thinking using drawings and expressions. Explain how you broke apart each number to your partner.

More Than 1 Way (continued)

 Show your thinking.

Number	One way	Another way
6	$\begin{array}{ccc} \underline{\quad\quad} & & \underline{\quad\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad\quad} & & \underline{\quad\quad} \end{array}$	$\begin{array}{ccc} \underline{\quad\quad} & & \underline{\quad\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad\quad} & & \underline{\quad\quad} \end{array}$
5	$\begin{array}{ccc} \underline{\quad\quad} & & \underline{\quad\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad\quad} & & \underline{\quad\quad} \end{array}$	$\begin{array}{ccc} \underline{\quad\quad} & & \underline{\quad\quad} \\ \text{-----} & + & \text{-----} \\ \underline{\quad\quad} & & \underline{\quad\quad} \end{array}$

Directions: For each number, show **2** different ways to break the number into 2 parts. Show your thinking using drawings and expressions. Explain how you broke apart each number to your partner.

Summary 5.03

Numbers can be broken apart in more than 1 way.

No matter how the tower is broken apart, the total is still 7.



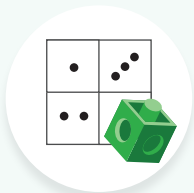
$$6 + 1$$



$$5 + 2$$

Practice 5.03

Choose from these Centers.



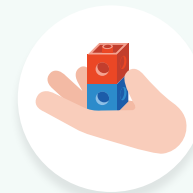
Rolling for
Numbers

Stage 2



Shake and Spill

Stage 3



What's Behind
My Back?

Stage 1



Show your thinking.

1

expression:

_____	_____	
-----	+	-----
_____	_____	

2

expression:

_____	_____	
-----	+	-----
_____	_____	

3

expression:

_____	_____	
-----	+	-----
_____	_____	

Directions:

1–3. Make a tower of 5 cubes. Break the cubes into 2 parts. Color the cubes using 2 different colors. Then fill in the addition expression.

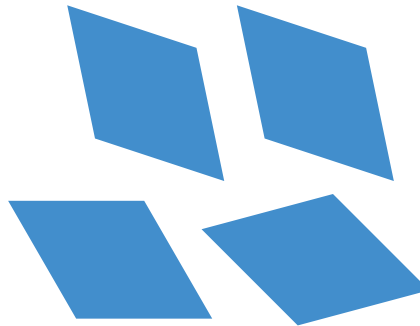
Spiral Review

- 4 Clare had 8 tomatoes in her garden. She picked 5 of the tomatoes. How many tomatoes are left in the garden?

 Show your thinking.

5





Directions:

4. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Write your answer on the line.
5. Write the number that tells how many. Circle the number that is *more*.

Equations and Drawings

Let's think about how equations show the parts of a number.

$$1 + 3 = 4$$



$$5 + 2 = 7$$



$$2 + 3 = 5$$



Warm-Up



eyes on teacher



I am a doer of math.

What do you still wonder about putting together or taking apart numbers?

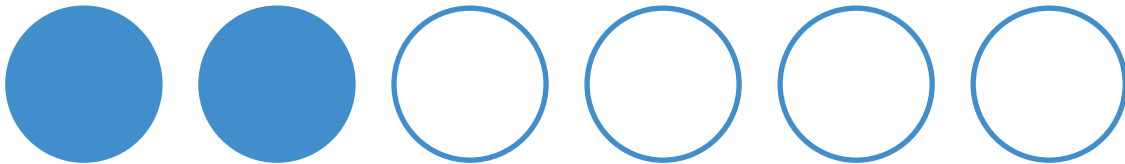
Activity

1

Notice and Wonder: Drawings and Equations

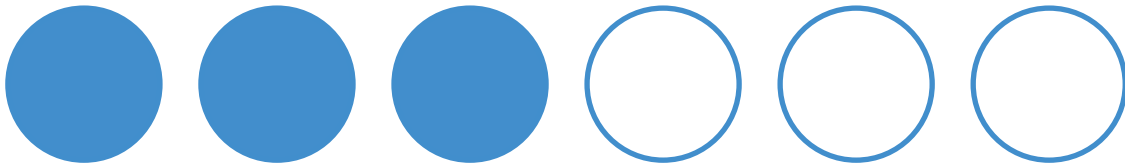
Discuss 

1



$$6 = 2 + 4$$

2



$$6 = 3 + 3$$

Directions: Tell your partner what you notice and what you wonder about the drawing and the equation.

Matching Drawings With Equations

3

Drawing

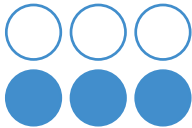
Equation



$$6 = 4 + 2$$



$$4 = 1 + 3$$



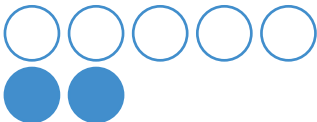
$$7 = 4 + 3$$



$$4 = 2 + 2$$



$$7 = 5 + 2$$

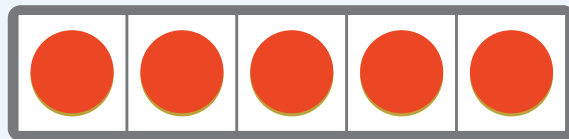


$$6 = 3 + 3$$

Directions: Draw lines to match each drawing with an equation. Explain your matches to your partner.

Summary 5.04

Equations can show a total number and the parts.

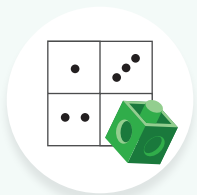


$$10 = 5 + 5$$

equation

Practice 5.04

Choose from these Centers.



Rolling for
Numbers

Stage 2



Shake and Spill

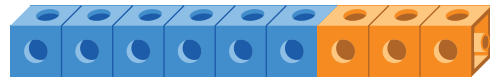
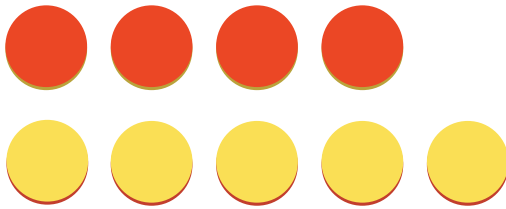
Stage 3



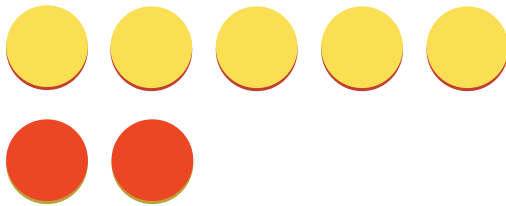
What's Behind
My Back?

Stage 1

1 $9 = 6 + 3$



2 $7 = 5 + 2$



Directions:

1–2. Circle the representation that matches the equation.

Spiral Review

3



4



5



Directions:

3. Draw a sun *above* the house. Draw a tree *beside* the house. Draw a square *below* the house.

4–5. Circle the number that is *more*.

Name _____

Being Flexible Within 10  K.OA.3, SMP.7, SMP.8


Harry Explores the Ocean

Let's break apart a number in as many ways as we can.



Warm-Up

1-2

 eyes on teacher

I can be all of me in math class.

What is something you would like your math community to know about you?

Activity

1

Ollie's Clammy Meal

3

Discuss 

We can break 8 into _____ and _____.

4

Hands-On 

Directions:

3 Tell your partner **1** way to break apart 8.

4 Break apart 8 in as many ways as you can. Then compare your work with a partner.

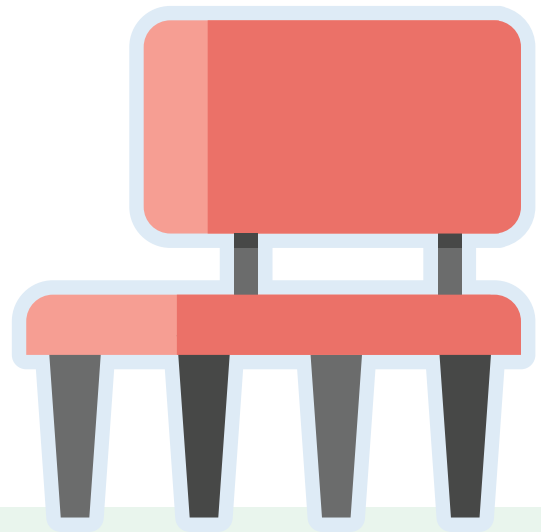
Ollie's Clammy Meal (continued)

5Discuss 

We can break 8 into _____ and _____.

6Discuss 

I notice _____.

**Directions:**

5 Let's share ways to break apart 8.

6 Tell your partner what patterns you notice in the expressions and the clams.

Ollie's Friends

7Discuss 

We can make 5 with 1 and _____.

8-9Hands-On **Directions:**

- 7** Tell your partner **1** way to make 5.
- 8** Make 5 in as many ways as you can. Then compare your work with a partner.
- 9** Make 9 in as many ways as you can. Then compare your work with a partner.

Ollie's Friends (continued)

10Discuss 

- The patterns are the same because _____.
- I used the patterns by _____.

**Directions:**

- 10** Tell your partner how the patterns for 5 and 9 are the same and how you used them to find more ways to make 8.

Summary 5.05

You can use patterns to find the ways a number can be broken apart.



$$1 + 5$$



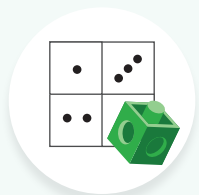
$$2 + 4$$



$$3 + 3$$

Practice 5.05

Choose from these Centers.



Rolling for
Numbers

Stage 2



Shake and Spill

Stage 3

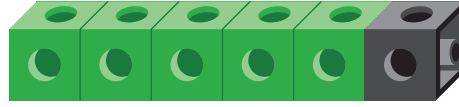


What's Behind
My Back?

Stage 1

Name _____

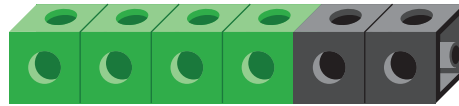
1



expression:

_____ + _____

2



expression:

_____ + _____

3



expression:

_____ + _____

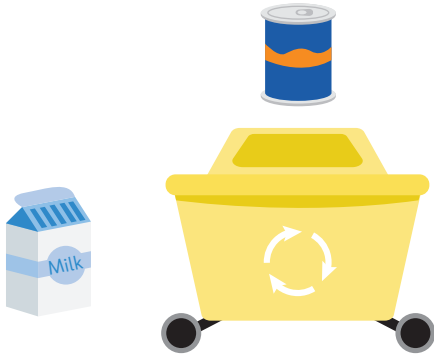
Directions:

1–2. Write an expression to represent the 2 parts of the tower.

3. Show another way to break the number 6 into 2 parts. Write an expression to show your thinking.

Spiral Review

4



5



6

0

1

2

7

10

Directions:

4. Circle the item that is *beside* the recycling bin.
5. Circle the item that is *above* the fountain.
6. Write the missing numbers.

More Types of Story Problems

✦ Unit Story: Where Is Harry?



hxdbzxy/Shutterstock.com

In the cafeteria, Skye and Brandon find red apples and green apples.

How could you figure out the total number of apples?

Name _____

Being Flexible Within 10 Model With Numbers K.OA.1, K.OA.3, SMP.2

At the Playground

Let's show what we know from a math story.



Warm-Up



eyes on teacher



We are a math community.
How does working with a partner help you learn math?

Activity

1

Harry's Flowers

1 Harry the Hamster saw 5 flowers on the playground.

Some of the flowers were pink and some were blue.



Show your thinking.

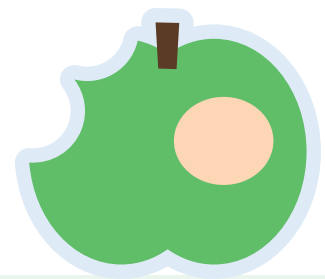
Directions: Use objects, drawings, numbers, or words to show the math story.

Pawprint Clues

- 2 The class found 8 pawprints on the playground. Some of the pawprints were in the garden and some were in the sandbox.



Show your thinking.

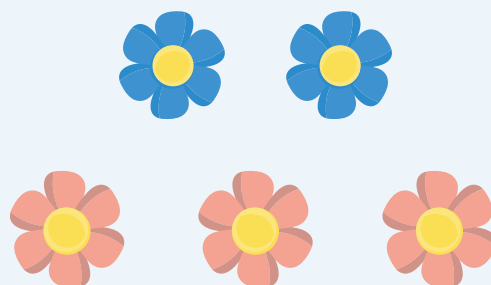


Directions: Use drawings, numbers, or words to show the math story. You can use objects if they are helpful. Then explain how your work matches the story.

Summary 5.06

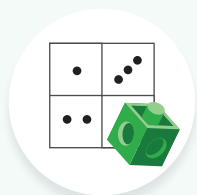
In some story problems, you know the total but you do not know the parts.

Harry the Hamster saw 5 flowers on the playground. Some of the flowers were pink and some were blue.



Practice 5.06

Choose from these Centers.



Rolling for
Numbers

Stage 2



Shake and Spill

Stage 3



What's Behind
My Back?

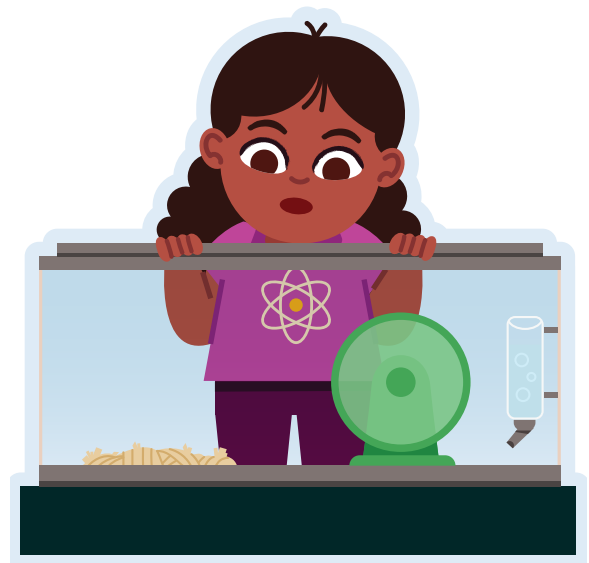
Stage 1

1 Priya noticed 9 insects in the grass.

Some of the insects were ladybugs and some were bees.

 Show your thinking.

A large, empty rounded rectangular box with a light green border, intended for the student to show their thinking.



Directions:

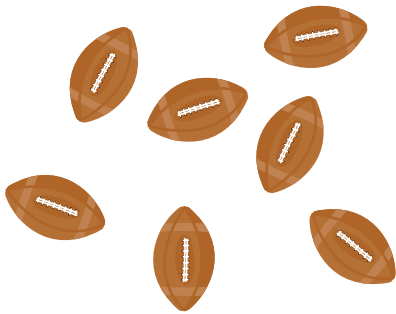
1. Use objects, drawings, numbers, or words to show the math story. Then explain how your work matches the story.

Spiral Review

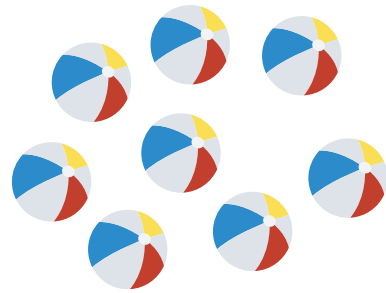
- 2 Shawn ate 2 apple slices at lunch.
Shawn ate 6 more apple slices for snack.
How many apple slices did Shawn eat?

 Show your thinking.

3




4



Directions:

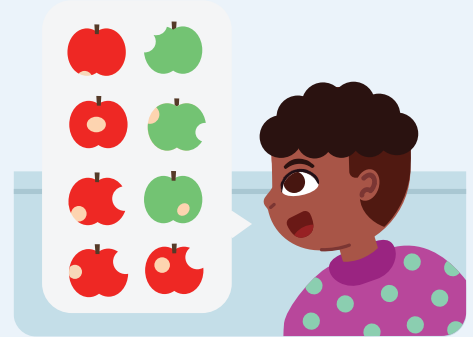
2. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Write your answer on the line.
- 3–4. Write the number that tells how many.

Name _____

Being Flexible Within 10 Model With Numbers  K.OA.1, K.OA.2, K.OA.3, SMP.2, SMP.3, SMP.4, SMP.6

In the Cafeteria

Let's solve story problems about the cafeteria.



Warm-Up



eyes on teacher

I am a doer of math.

Mr. Romero's class uses math as they search for Harry. How does math help you solve problems?

Activity

1

Harry's Sweet Treats

- 1 Harry the Hamster found 6 apples. Some were red and some were yellow.

 Show your thinking.

He found _____ red and _____ yellow.

Directions: Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Then show your answer and explain it to your partner.

Clues in the Cafeteria

- 2 The students saw 9 cartons in the cafeteria. Some cartons had juice and some had milk.

 Show your thinking.

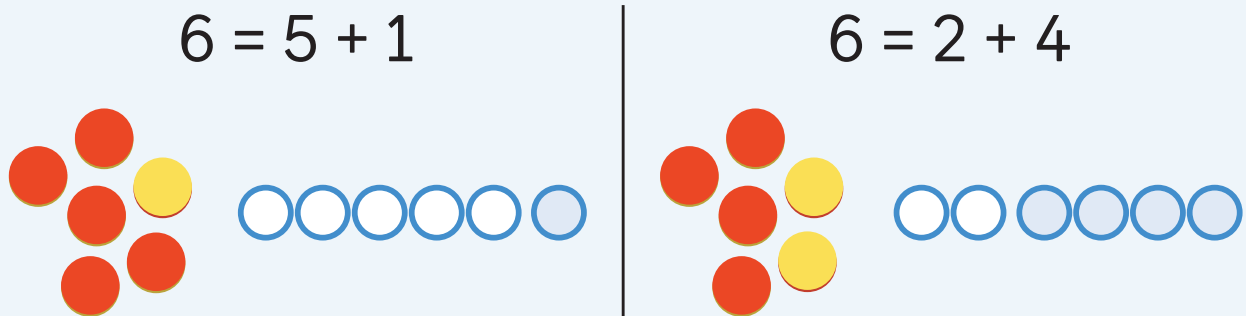
equation: $\overline{\underline{9}} = \overline{\underline{\quad}} + \overline{\underline{\quad}}$

They saw $\overline{\underline{\quad}}$ juice cartons
 and $\overline{\underline{\quad}}$ milk cartons.

Directions: Solve the story problem. Show your thinking using a drawing. Fill in the equation to match your work. Then fill in the blanks to show your answer.

Summary 5.07

Some story problems can have more than 1 answer.
Equations can help you clearly see the answers.



Practice 5.07

You'll play this Center.



Math Stories Stage 3

Let's tell and act out story problems to answer questions.

1 Diego has 7 fish in his fish tank.

They are 2 different colors, orange and blue.

How many of the fish are orange?

How many of the fish are blue?



Show your thinking.

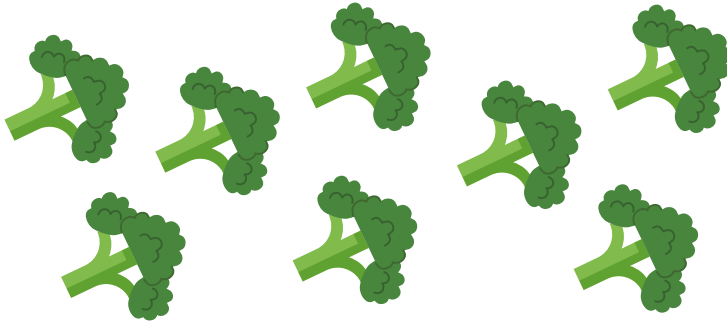
He has _____ orange and _____ blue.

Directions:

1. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Then fill in the blanks to show your answer.

Spiral Review

2



3



4



5




Directions:

2–3. Write the number that tells how many.

4–5. Circle the number that is *less*.

Name _____

Being Flexible Within 10 Model With Numbers  K.OA.2, K.OA.1, K.OA.3, SMP.2, SMP.4, SMP.7, SMP.8

In the Library

Let's figure out more than 1 answer to a story problem.



$$1+3=4$$



$$2+2=4$$



Warm-Up



eyes on teacher



I am a doer of math.

Why is it important to show and explain your thinking in math class?

Activity

1

Lost in the Library?

- 1 Harry the Hamster knocked over 8 markers. Some of the markers were yellow and the rest of the markers were blue.

Han	Diego
	<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block; margin-left: 20px;"> $8 = 3 + 5$ <p>total y b</p> </div>

Directions:

1. Tell your partner what you notice and wonder about Han's and Diego's drawings.

Lost in the Library? (continued)

- 2 Harry the Hamster knocked over a bin of 8 markers.

Some of the markers were yellow and the rest of the markers were blue.

How many of the markers were yellow?

How many of the markers were blue?

 Draw

equation: $\begin{array}{c} \text{---} \\ 8 \\ \text{---} \end{array} = \begin{array}{c} \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \end{array}$

Directions:

2. Work with your partner to figure out another answer to the story problem. Use a drawing to show your thinking and include number labels. Fill in the equation to show your answer.

Gathering Grapes

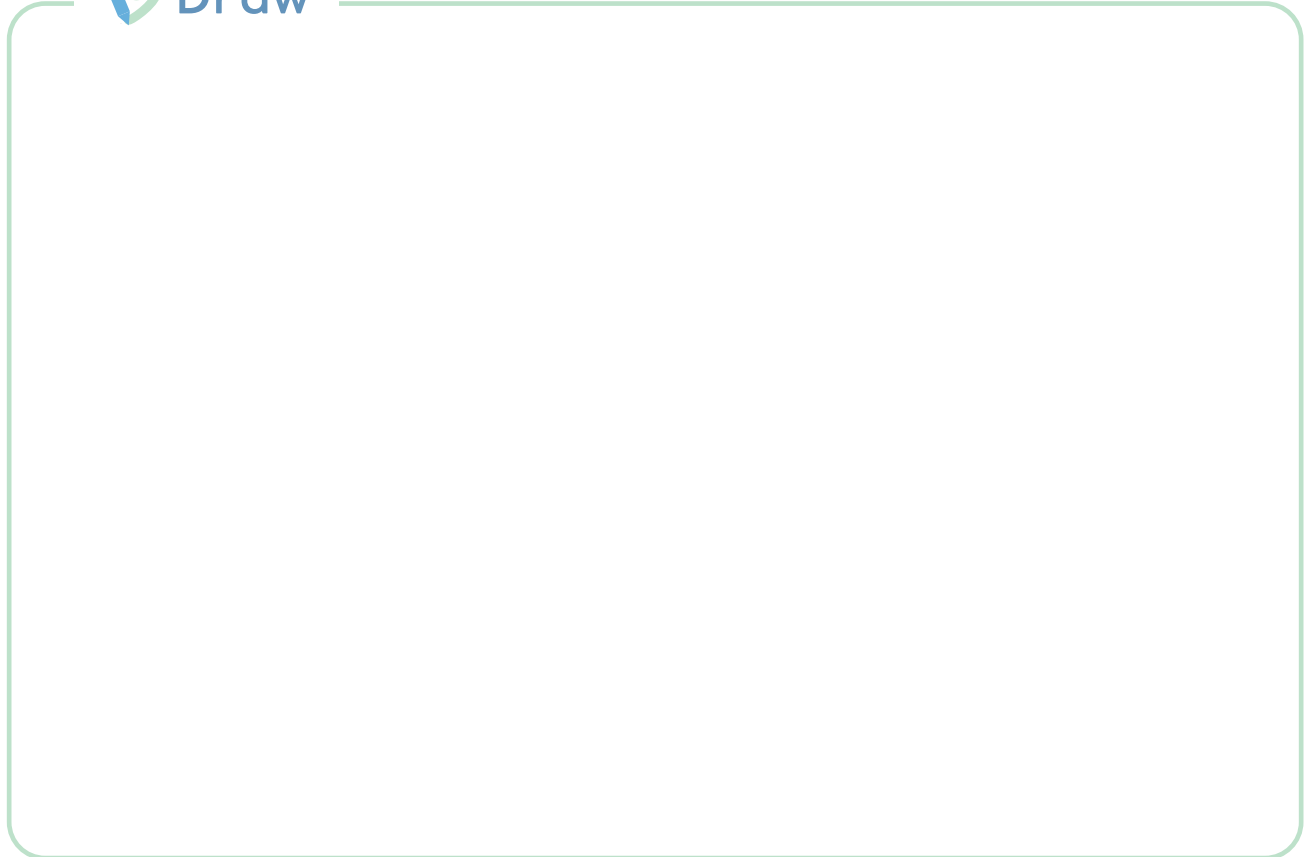
- 3 Harry the Hamster spilled 7 grapes by the librarian's desk.

Some grapes were green and some were purple.

How many grapes were green?

How many grapes were purple?

 Draw



Directions: Tell your partner what happened in the story problem. Then solve the story problem. Use drawings to show as many answers as you can. Fill in the equations to show your answers.

Gathering Grapes (continued)

equation: $7 = \underline{\quad} + \underline{\quad}$

equation: $7 = \underline{\quad} + \underline{\quad}$

equation: $7 = \underline{\quad} + \underline{\quad}$

equation: $7 = \underline{\quad} + \underline{\quad}$

equation: $7 = \underline{\quad} + \underline{\quad}$

equation: $7 = \underline{\quad} + \underline{\quad}$

Directions: Tell your partner what happened in the story problem. Then solve the story problem. Use drawings to show as many answers as you can. Fill in the equations to show your answers.

Summary 5.08

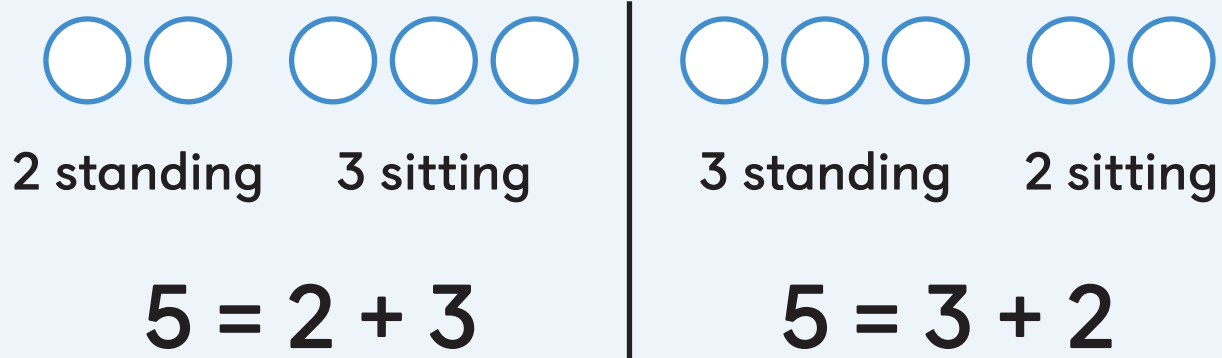
In story problems where you know the total but do not know the parts, you can use patterns to figure out more than 1 answer.

5 students were working in the library.

Some students were standing and some were sitting.

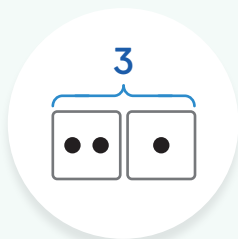
How many students were standing?

How many students were sitting?



Practice 5.08

You'll play this Center.



Make or Break Apart Numbers

Stage 1

Let's put 2 groups together to make a number.

- 1 Priya found 6 colored pencils on the floor.
Some of them were pink and some were blue.
How many colored pencils were pink?
How many colored pencils were blue?

 Draw

$$6 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

$$6 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

$$6 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

Directions:

1. Solve the story problem. Use drawings to show as many answers as you can. Fill in the equations to show your answers.

Spiral Review

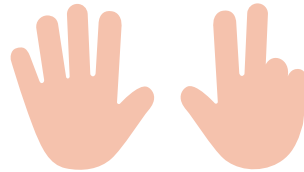
2



3



4



5



6



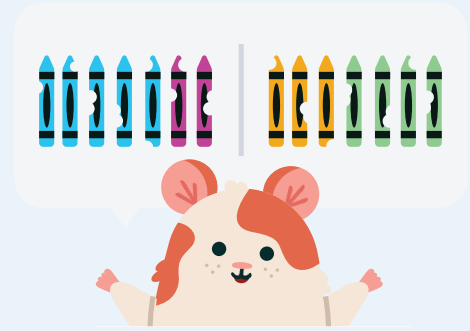
Directions:

2. Circle the animal that is *above* the pond. Put an X on the animal that is *beside* the pond. Underline the animal that is *below* the pond.

3–6. Write the number that tells how many.

In the School Office

Let's compare story problems and solve them.



Warm-Up



eyes on teacher



I am a doer of math.

Where have you seen 2 parts and a total outside of math class?

Activity

1

The Supply Closet

1 Harry spilled 6 bottles of paint. Some of the bottles were blue. The rest of the bottles were red.

2 Harry spilled some bottles of paint in the supply closet. 4 bottles of paint were blue and 2 bottles were red.

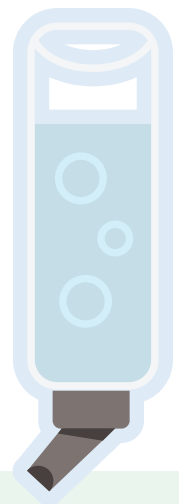
Directions: Tell your partner what happened in each story. Then tell your partner what you notice and wonder.

The Supply Closet (continued)

3

Discuss 

- I notice _____.
- I wonder _____.



Directions: Tell your partner what happened in each story. Then tell your partner what you notice and wonder.

Comparing Story Problems

- 4 Harry spilled 6 bottles of paint.
Some of the bottles were blue.
The rest of the bottles were red.
How many bottles were red?
How many bottles were blue?



Show your thinking.

Directions: Solve each problem. Show your thinking using objects, drawings, numbers, or words. Then write equations to show your thinking. Compare your answers to each problem. Tell your partner what you notice.

Comparing Story Problems (continued)

5 Harry spilled some bottles of paint in the supply closet.

4 bottles of paint were blue and 2 bottles were red.

How many bottles of paint did Harry spill?



Show your thinking.

Directions: Solve each problem. Show your thinking using objects, drawings, numbers, or words. Then write equations to show your thinking. Compare your answers to each problem. Tell your partner what you notice.

Summary 5.09

When you have a story problem where you know the parts but have to figure out the total, there can be only 1 answer.

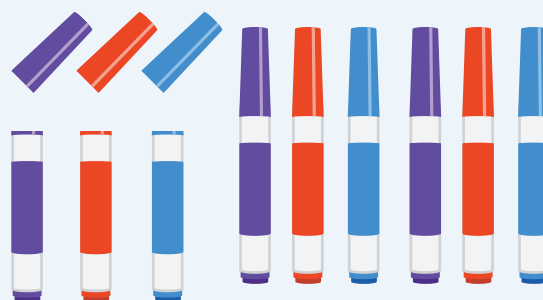
Harry the Hamster knocked over some markers.

3 markers were open.

6 markers were closed.

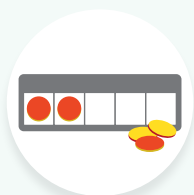
How many markers did Harry knock over?

$$9 = 3 + 6$$



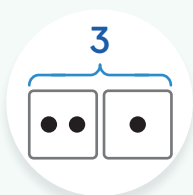
Practice 5.09

Choose from these Centers.



5-Frames

Stage 1



Make or Break
Apart Numbers

Stage 1



Math Stories

Stage 3

- 1 Clare saw some butterflies in the garden.
6 of the butterflies were yellow and 3 were pink.
How many butterflies did Clare see?

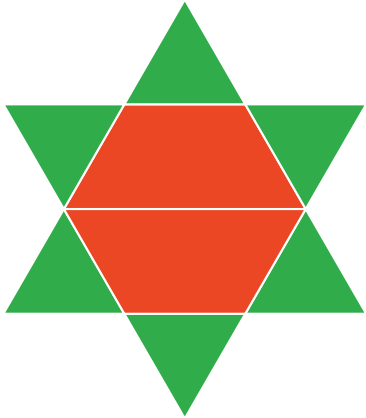
 Show your thinking.

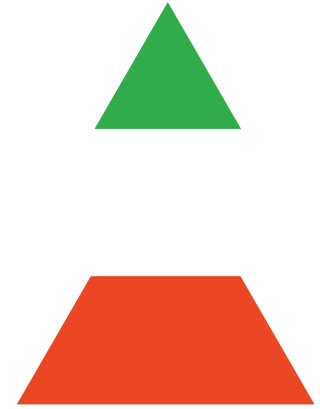
**Directions:**

1. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Then write an equation to show your thinking.

Spiral Review

2





3



4




Directions:

2. Write the number that tells how many for each type of pattern block.

3–4. Circle the shape that you see in the picture.

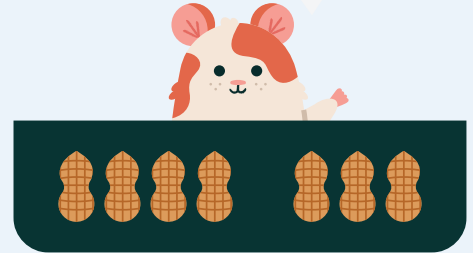
Name _____

Being Flexible Within 10 Model With Numbers  K.OA.1, K.OA.2, K.OA.3, SMP.1, SMP.2

In the Teachers' Lounge

Let's think about how drawings and equations match story problems.

$$7=4+3$$



Warm-Up



eyes on teacher



We are a math community.
What strengths do you see in your math community?

Activity

1

All the Story Problems

Workspace

Directions: Draw lines to match each story problem with a drawing and an equation. Use the workspace if it is helpful.

All the Story Problems (continued)

1 Story problem

Drawing and equation

A

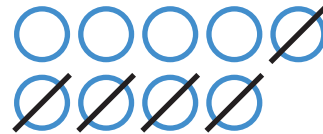


6 p

2 w

$$8 = 6 + 2$$

B



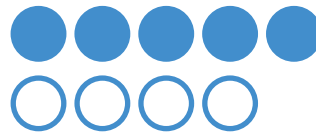
$$9 - 5 = 4$$

C



$$9 = 6 + 3$$

D

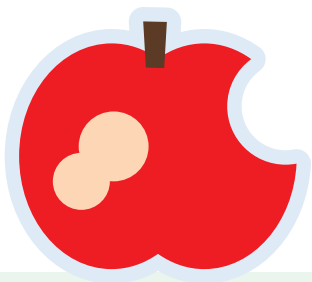
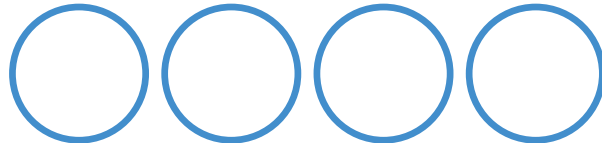
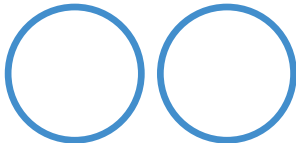


$$5 + 4 = 9$$

Directions: Draw lines to match each story problem with a drawing and an equation. Use the workspace if it is helpful.

Creating a Matching Story Problem

2

Discuss 

Directions: Think about how the drawing shows adding. Tell your partner a story problem that matches the drawing. Fill in the equation to show your answer.

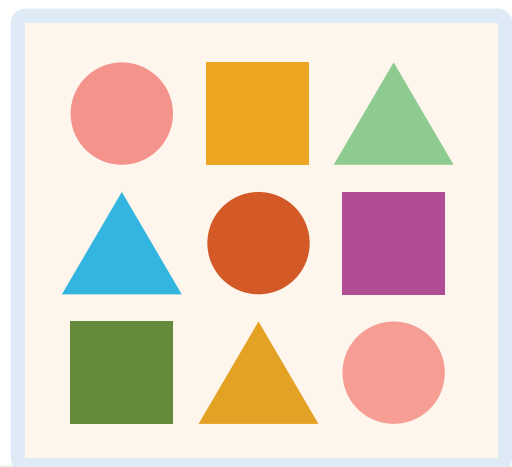
Creating a Matching Story Problem (continued)

3



Show your thinking.

$$\begin{array}{c}
 \text{_____} \\
 \text{-----} \\
 \text{_____}
 \end{array}
 =
 \begin{array}{c}
 \text{_____} \\
 \text{-----} \\
 \text{_____}
 \end{array}
 +
 \begin{array}{c}
 \text{_____} \\
 \text{-----} \\
 \text{_____}
 \end{array}$$



Directions: Think about how the drawing shows adding. Tell your partner a story problem that matches the drawing. Fill in the equation to show your answer.

Summary 5.10

Thinking about what you know and what you do not know can help you understand and solve different types of story problems.

Harry the Hamster has 5 toys in his cage.

Some toys are for chewing and some toys are for climbing.

How many toys are for chewing?

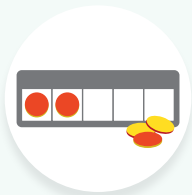
How many toys are for climbing?



I know Harry has 5 toys. I don't know how many are for chewing and how many are for climbing.

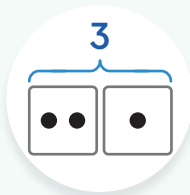
Practice 5.10

Choose from these Centers.



5-Frames

Stage 1



**Make or Break
Apart Numbers**

Stage 1



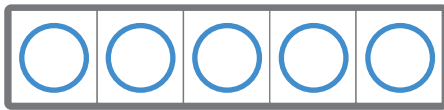
Math Stories

Stage 3

Practice 5.10

Name _____

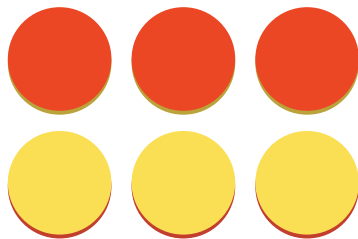
- 1 Diego has some coins.
3 of the coins are silver.
4 of the coins are gold.
How many coins does Diego have?



$$7 + 0 = 7$$



$$3 + 4 = 7$$



$$3 + 3 = 6$$



$$6 + 1 = 7$$

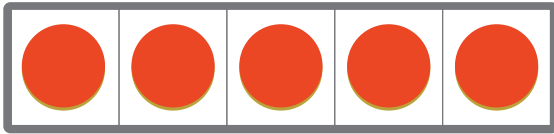
Directions:

1. Circle the student work that matches the story problem.

Practice 5.10

Name _____

2



equation:

$$\begin{array}{c} \underline{\hspace{2cm}} \\ \text{-----} \\ \underline{\hspace{2cm}} \end{array} = \begin{array}{c} \underline{\hspace{2cm}} \\ \text{-----} \\ \underline{\hspace{2cm}} \end{array} + \begin{array}{c} \underline{\hspace{2cm}} \\ \text{-----} \\ \underline{\hspace{2cm}} \end{array}$$

Spiral Review

3



4



5



6



Directions:

2. Think about how the drawing shows adding. Tell a story problem that matches the drawing. Fill in the equation to show your story problem.

3–4. Circle the number that is *more*.

5–6. Circle the number that is *less*.

Making and Breaking Apart 10

Unit Story: Where Is Harry?



Szasz-Fabian Ilka Erika/Shutterstock.com


There were 9 students and 1 teacher in Mr. Romero's class. 9 and 1 is the same as 10.

What are other ways you can make 10?

Name _____

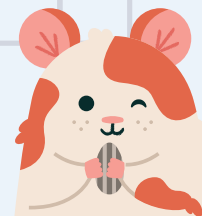
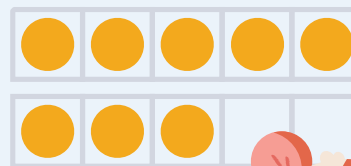
Sort and Describe Data

How Many?

 K.CC.5, K.CC.4, SMP.7, SMP.8

Harry Is Home

Let's make and use 10-frames.



Warm-Up



eyes on teacher



I am a doer of math.

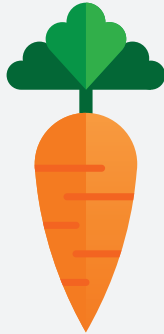
What math tools have you used in this unit? How have they helped you?

Activity

1

10-Frames


1

<p>6</p> 	
---	--


Directions: Use 5-frames to make each number.

10-Frames (continued)


2

<p>8</p> 	
--	--

3

<p>9</p> 	
--	--

4

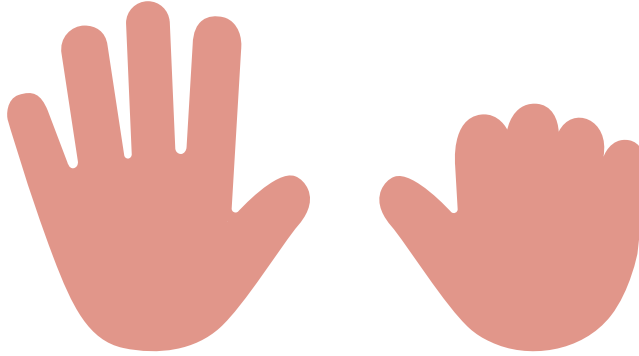
<p>10</p> 	
---	--

Directions: Use 5-frames to make each number.

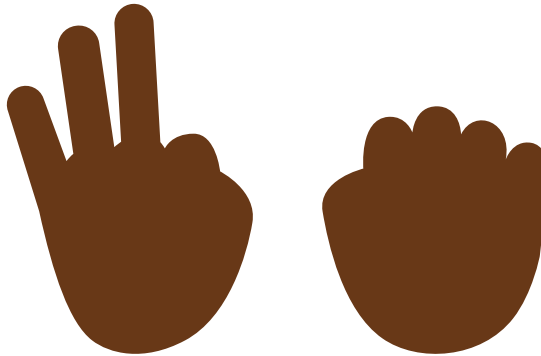
Numbers on Fingers and 10-Frames

Hands-On 

5



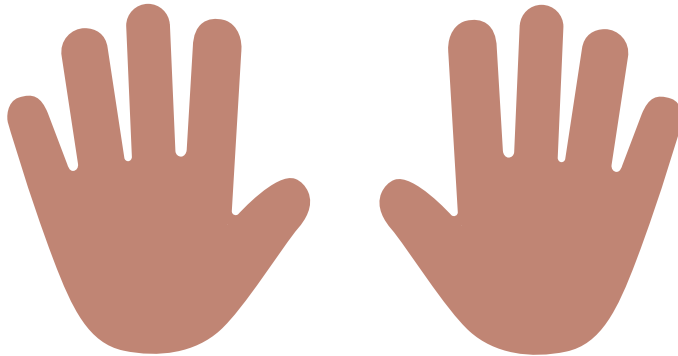
6



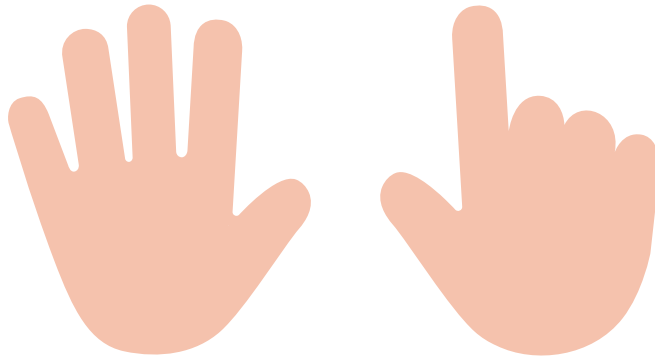
Directions: Figure out how many fingers you see and then use counters to show the same number on a 10-frame. Explain to your partner how you showed the number.

Numbers on Fingers and 10-Frames (continued)

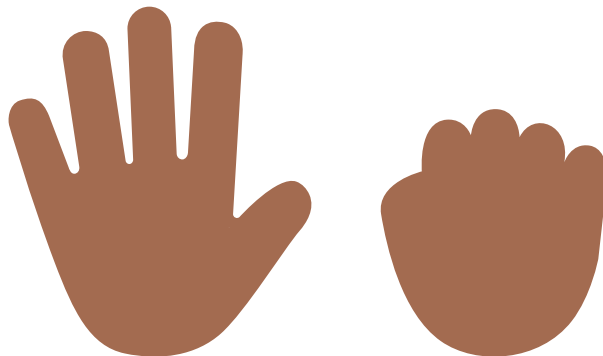
7



8



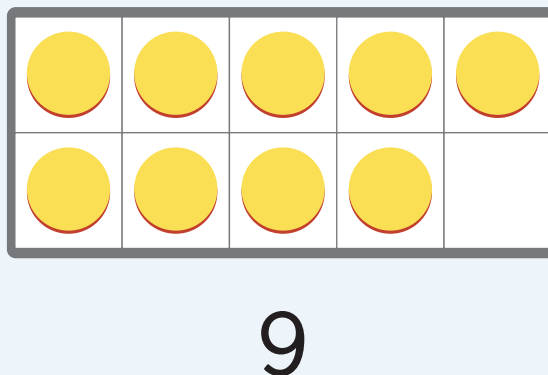
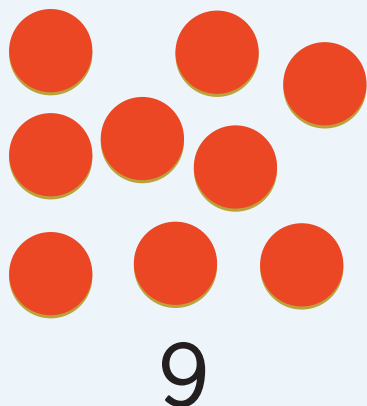
9



Directions: Figure out how many fingers you see and then use counters to show the same number on a 10-frame. Explain to your partner how you showed the number.

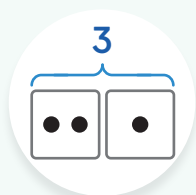
Summary 5.11

10-frames help us figure out how many because we can see numbers compared to 5 or 10.



Practice 5.11

Choose from these Centers.



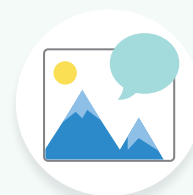
**Make or Break
Apart Numbers**

Stage 1



Math Fingers

Stage 3



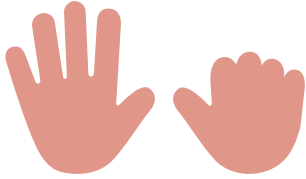
Math Stories

Stage 3

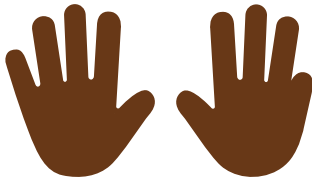
Practice 5.11

Name _____

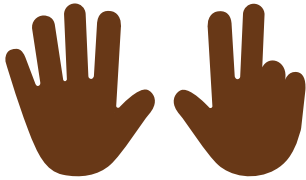
1



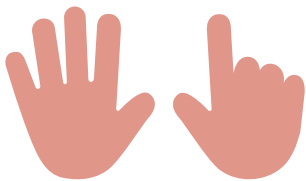
2



3



4



Directions:

1–4. For each set of fingers, use objects to show the same number on the 10-frame.

Spiral Review

- 5 Clare had 10 crayons.
6 of her crayons fell on the floor.
How many crayons does Clare have now?

 Show your thinking.

6

0

4 5


6

10

Directions:

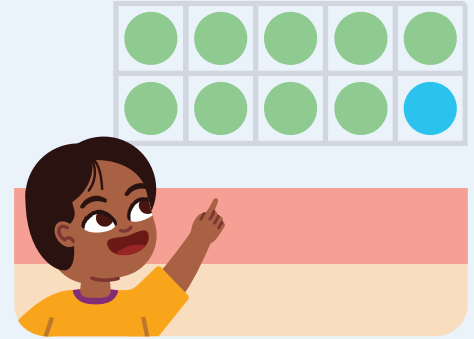
5. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Write your answer on the line.
6. Write each missing number.

Name _____

Being Flexible Within 10 Model With Numbers  K.OA.3, K.OA.1, SMP.2, SMP.7

Equations That Show 10

Let's match equations with 10-frames and fingers.



Warm-Up



eyes on teacher



I am a doer of math.
How are you using math tools
in new ways?

Activity

1

Matching Equations and 10-Frames

1

Discuss 

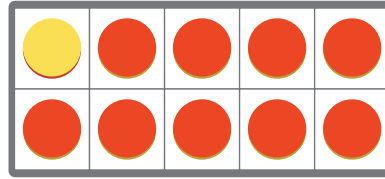
I noticed _____, so I matched _____.

Directions: Draw lines to match each equation with a 10-frame and explain your matches to your partner.

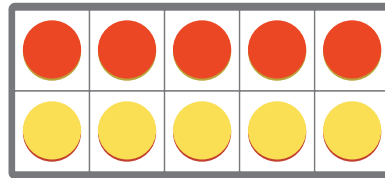
Matching Equations and 10-Frames (continued)

1

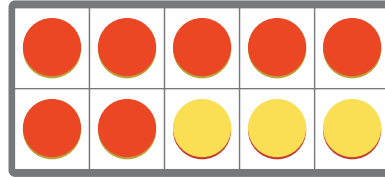
$$10 = 7 + 3$$



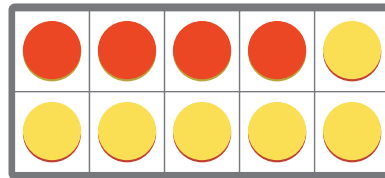
$$10 = 8 + 2$$



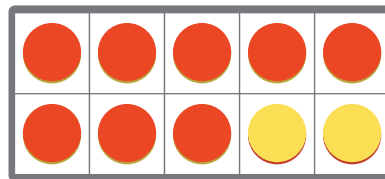
$$10 = 1 + 9$$



$$10 = 5 + 5$$



$$10 = 4 + 6$$



Directions: Draw lines to match each equation with a 10-frame and explain your matches to your partner.

Showing Equations With Fingers

i Show your thinking.

2

$$10 = 6 + 4$$



3

$$10 = 9 + 1$$



Directions: Color the fingers to show each equation. Then explain how the fingers match the equation.

Showing Equations With Fingers (continued)

i Show your thinking.

4

$$10 = 8 + 2$$



5

$$10 = 3 + 7$$



6

$$10 = 5 + 5$$

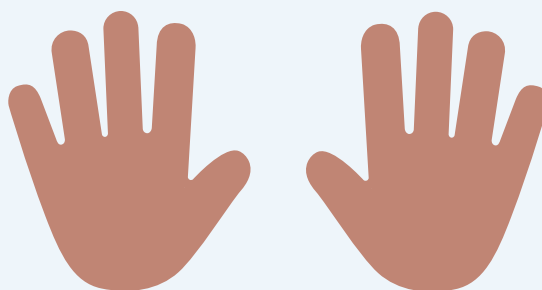
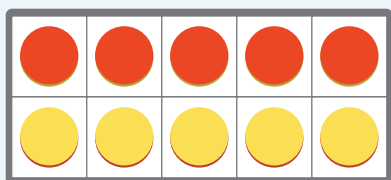


Directions: Color the fingers to show each equation. Then explain how the fingers match the equation.

Summary 5.12

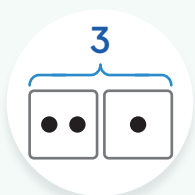
Equations, 10-frames, and fingers can all show ways to make and break apart 10.

$$10 = 5 + 5$$



Practice 5.12

Choose from these Centers.



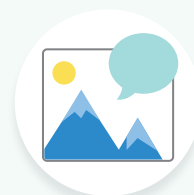
**Make or Break
Apart Numbers**

Stage 1



Math Fingers

Stage 3



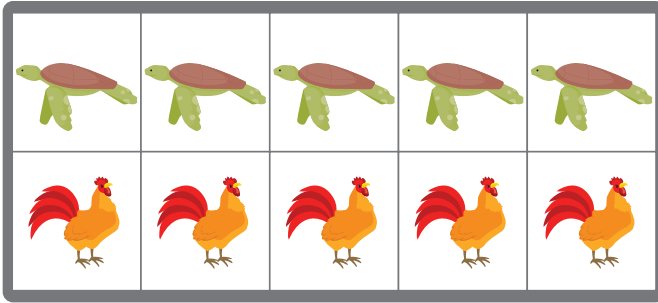
Math Stories

Stage 3

Practice 5.12

Name _____

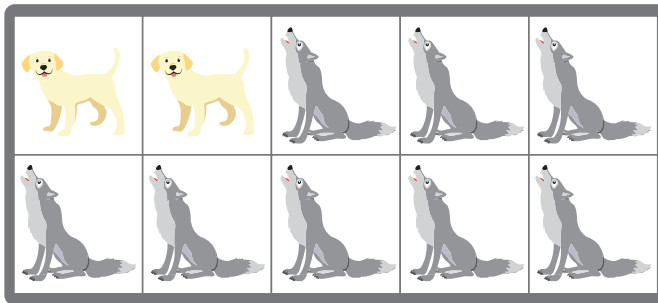
1



$10 = 5 + 5$

$10 = 3 + 7$

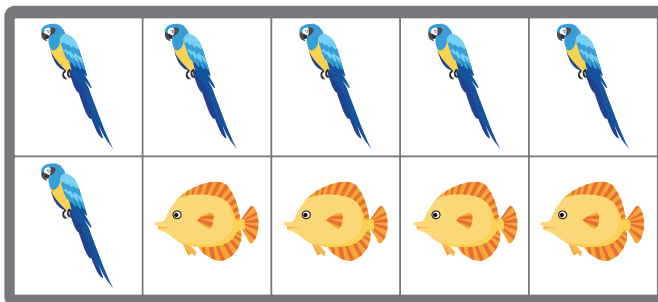
2



$10 = 9 + 1$

$10 = 2 + 8$

3



$10 = \underline{\quad} + \underline{\quad}$

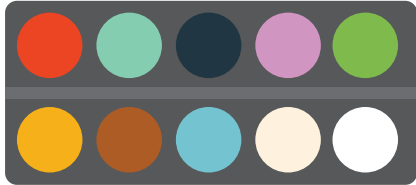
Directions:

1–2. Circle the equation that matches the 10-frame.

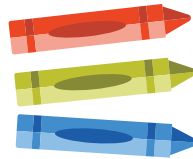
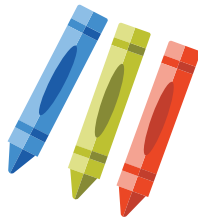
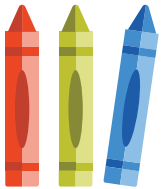
3. Fill in the equation to match the 10-frame.

Spiral Review

4  Draw



5



6



Directions:

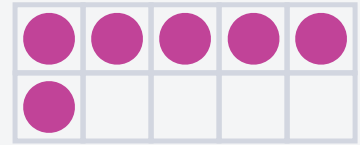
4. Draw 2 shapes you see in the picture.

5–6. Write the number that tells how many.

Harry's Hamster Wheel

Let's use 10-frames and fingers to make 10.

$$10 = 6 + 4$$



Warm-Up



eyes on teacher



I can be all of me in math class.

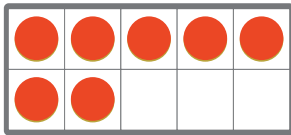
What are you learning in math class that you want to practice more?

Activity

1

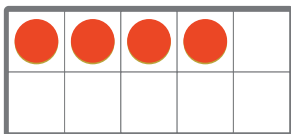
How Many Are Missing?

1



$$10 = \underline{\quad} + \underline{\quad}$$

2

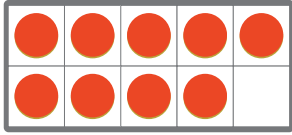


$$10 = \underline{\quad} + \underline{\quad}$$

Directions: Work with your partner to figure out how many counters are needed to fill each 10-frame. Write a number to show how many counters are needed and then fill in the equation to show the 2 parts that make 10.

How Many Are Missing? (continued)

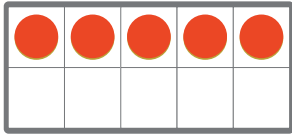
3



 - - - - -

$$10 = \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array}$$

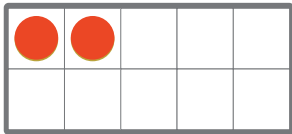
4



 - - - - -

$$10 = \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array}$$

5



 - - - - -

$$10 = \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{- - - - -} \\ \text{_____} \end{array}$$

Directions: Work with your partner to figure out how many counters are needed to fill each 10-frame. Write a number to show how many counters are needed and then fill in the equation to show the 2 parts that make 10.

Math Fingers

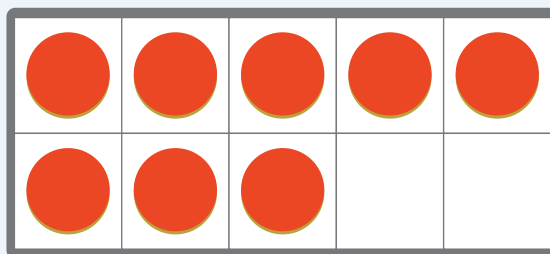
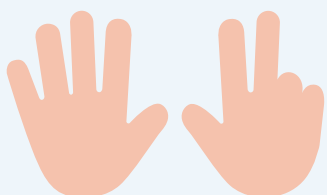
Hands-On 

Equation	
10 = _____ + _____	_____
10 = _____ + _____	_____
10 = _____ + _____	_____
10 = _____ + _____	_____
10 = _____ + _____	_____

Directions: Choose a number card and show the number on your fingers. Then have your partner show the number you need to make 10 on their fingers. Fill in an equation to show the 2 parts that make 10.

Summary 5.13

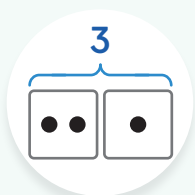
Fingers and 10-frames can help you figure out how many you need to make 10. Equations can show the parts that make 10.



$$10 = 8 + \underline{2}$$

Practice 5.13

Choose from these Centers.



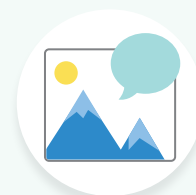
Make or Break
Apart Numbers

Stage 1



Math Fingers

Stage 4



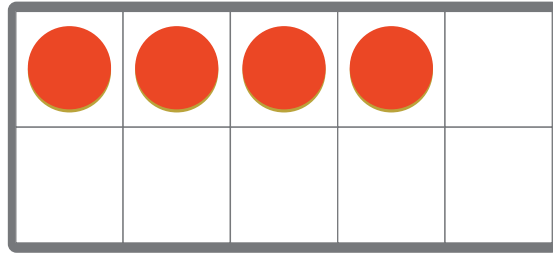
Math Stories

Stage 3

Practice 5.13

Name _____

1



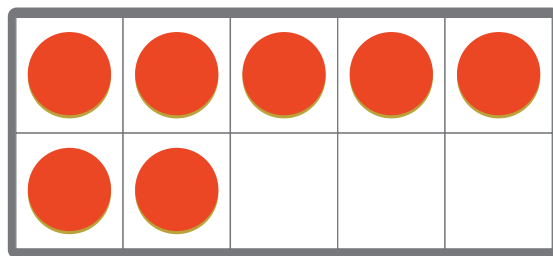
$$10 = \begin{array}{c} \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \end{array}$$

2



$$10 = \begin{array}{c} \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \end{array}$$

3



$$10 = \begin{array}{c} \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \end{array}$$

Directions:

1–3. Figure out how many are needed to make 10. Fill in the equation to show the 2 parts that make 10.

Spiral Review

4



5



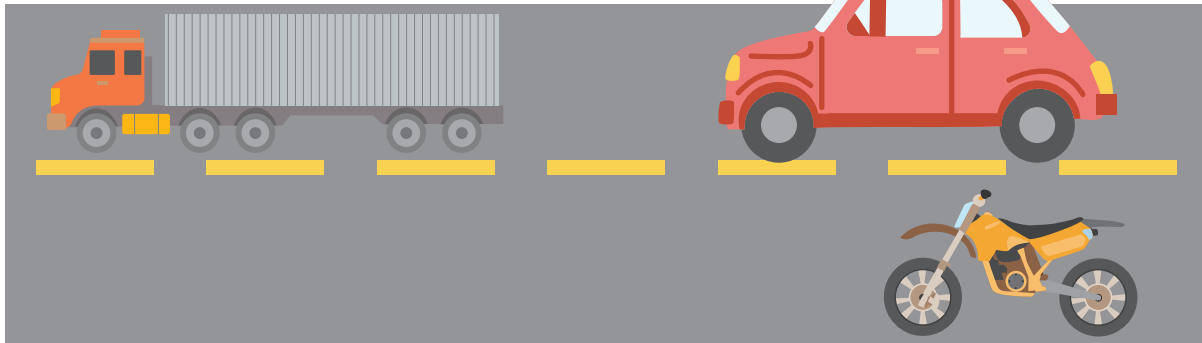
6



7



8



Directions:

4–5. Write a number that is *more*.

6–7. Write a number that is *less*.

8. Draw a sun above the car. Circle the object that is *below* the car. Cross out the object that is *next to* the car.

Name _____

Being Flexible Within 10  K.OA.4, K.OA.3, SMP.7, SMP.8

Harry Explores Space


Let's use expressions and equations to show the parts that make 10.



I can be all of me in math class.
Mr. Romero's class helps Harry.
What do you need help with in math class?

Warm-Up

1-2

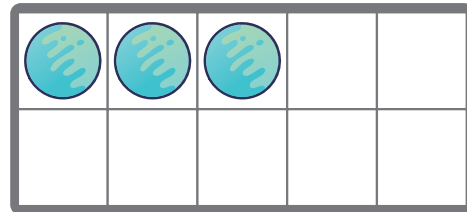
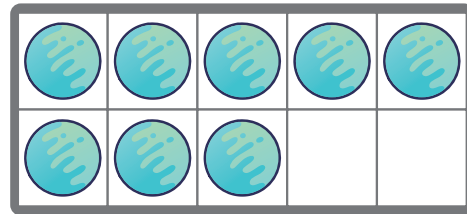
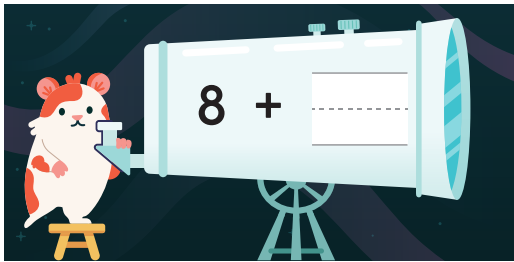
 eyes on teacher

Activity

1

Telescope Time!

3

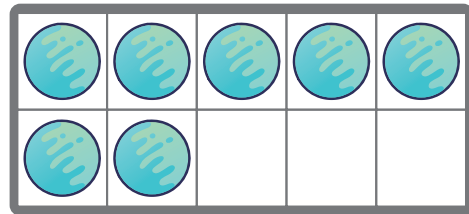
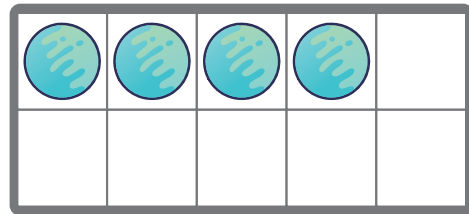
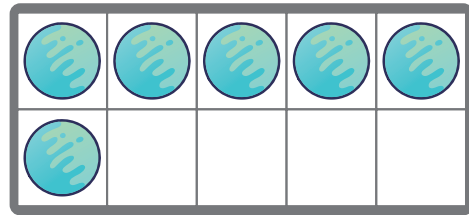
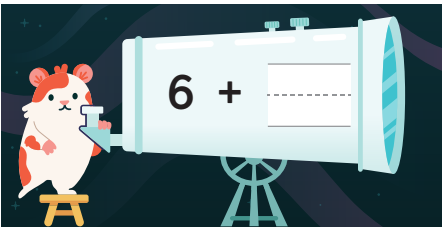
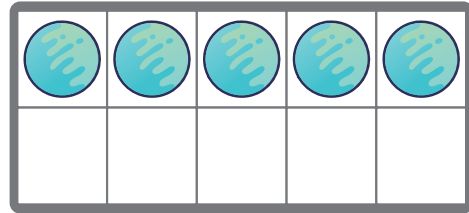
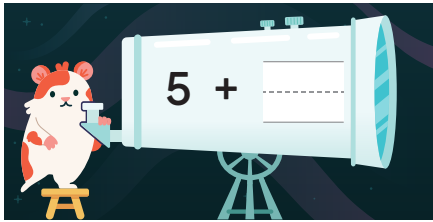


Directions:

3 Fill in the expression to make 10. Explain to your partner how you figured out how to make 10.

Telescope Time! (continued)

3



4

Discuss

I notice _____.

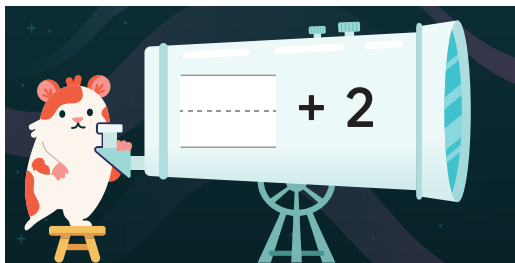
Directions:

- 3 Fill in the expression to make 10. Explain to your partner how you figured out how to make 10.
- 4 Tell your partner what you notice about these equations.

Harry Searches the Sky

5





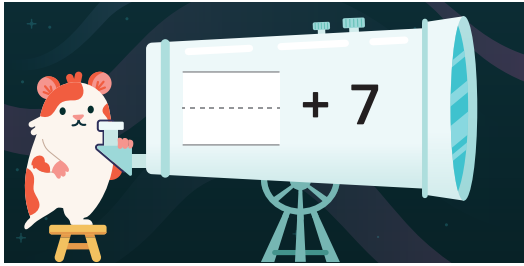


Directions:

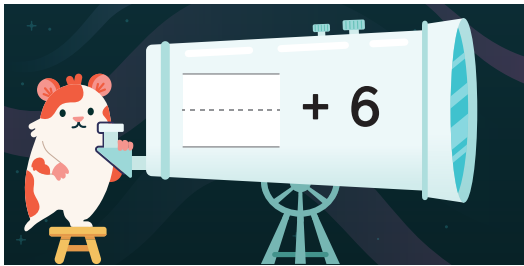
- 5 Fill in the expression to make 10. Explain to your partner how you figured out how to make 10.

Harry Searches the Sky (continued)

5







6

Discuss 

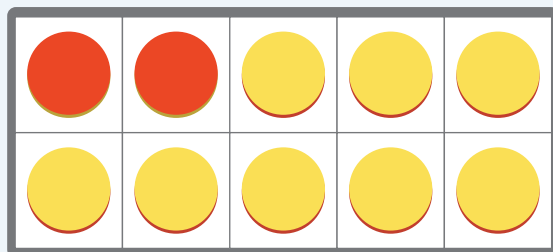
I notice _____. I wonder _____.

Directions:

- 5 Fill in the expression to make 10. Explain to your partner how you figured out how to make 10.
- 6 Tell your partner what you notice and wonder about these ways to make 10.

Summary 5.14

2 parts that make 10 can be written in any order and still make 10.

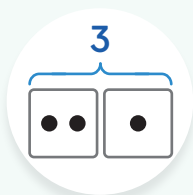


$$10 = \underline{2} + \underline{8}$$

$$10 = \underline{8} + \underline{2}$$

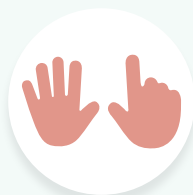
Practice 5.14

Choose from these Centers.



Make or Break
Apart Numbers

Stage 1



Math Fingers

Stage 4



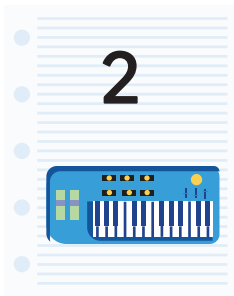
Math Stories

Stage 3

Practice 5.14

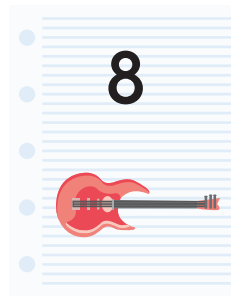
Name _____

1



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

2



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

3



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

4



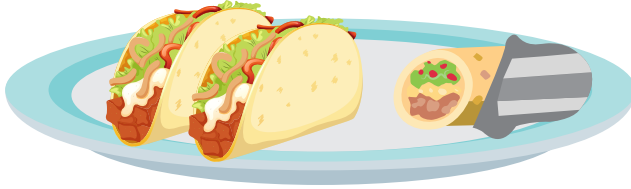
$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

Directions:

1–4. Priya and Shawn need help to make sure they have 10 of each instrument for their music class. Write the number that shows how many more are needed to make 10. Then fill in the equation to show the 2 parts that make 10.

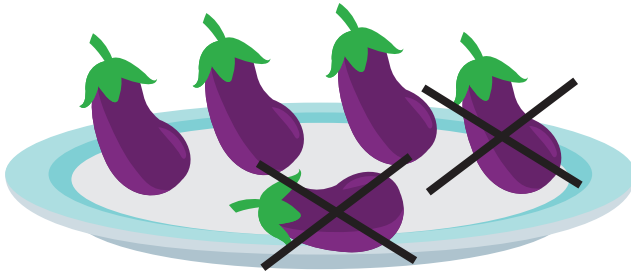
Spiral Review

5



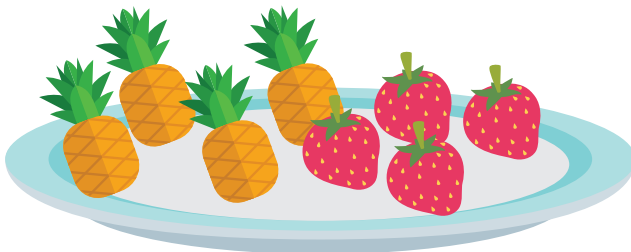
$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

6



$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} - \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

7



$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

Directions:

5–7. Tell a story about the picture. Fill in the expression to match the picture.

Name _____

Being Flexible Within 10  K.OA.3, K.OA.4, SMP.5, SMP.7

Showing What We Know About 10

Let's break 10 apart in as many ways as we can.



Warm-Up



eyes on teacher

We are a math community.
How have you grown as a math partner this year?

Activity

1

Ways to Make 10 Posters

Hands-On 

1

Discuss 

- One way to make 10 is _____.
- Another way to make 10 is _____.

Directions: Work with your group to figure out as many ways as you can to make 10 and then show them on your poster.

Gallery Tour: Ways to Make 10

2

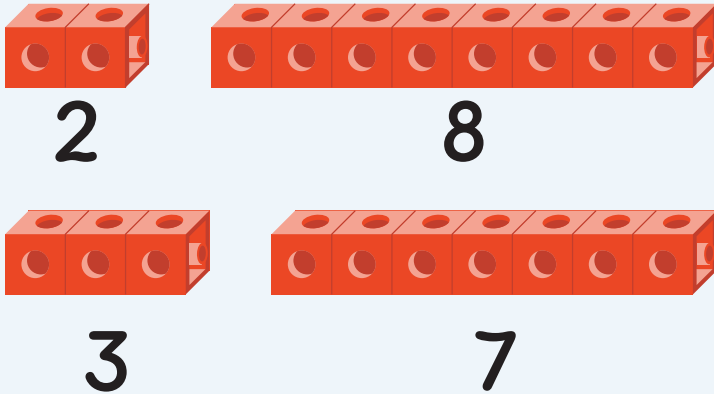
Discuss 

- I notice _____.
- I wonder _____.
- These ways to make 10 are the same because _____.
- These ways to make 10 are different because _____.

Directions: Tell your partner what you notice and wonder. Explain what is the same and different about the ways to make 10.

Summary 5.15

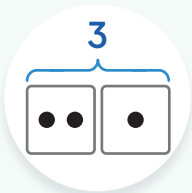
There are many ways to make 10. You can use patterns to help you find ways to break the number 10 apart.



I can move a cube from one part to the other to find another way to make 10.

Practice 5.15

Choose from these Centers.



Make or Break
Apart Numbers

Stage 1



Math Fingers

Stage 4



Math Stories

Stage 3

Practice 5.15

Name _____

1



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

2



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

3



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

4



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

5



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

6



$$10 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

Directions:

1–4. Fill in the equation to show the 2 parts that make 10.

5–6. Color the cubes to show 2 parts that make 10. Fill in the equation to match your work.

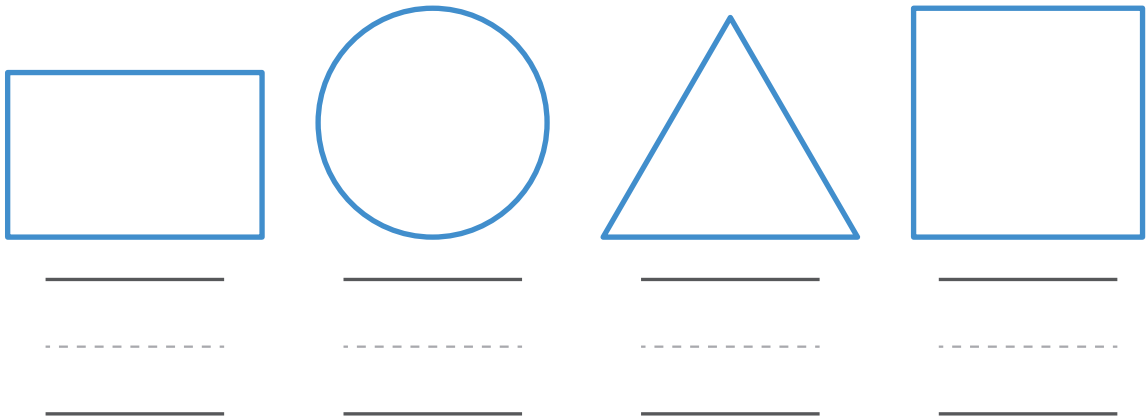
Spiral Review

7

 Draw



8



Directions:

- 7. Draw a picture using only the given shapes. Use as many of each shape as you would like.
- 8. Write the number that tells how many of each shape you used in Problem 7.

Math at Work

What is your favorite thing to do at the playground?

Playground designers create safe and fun play spaces for children. They might add to know how many swings or slides to put on the playground.



PeopleImages.com - Yuri A/Shutterstock.com. Efired/Shutterstock.com.

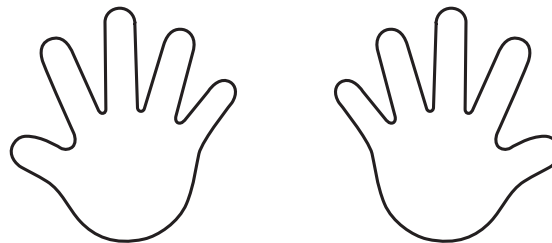
Math in the World



Tatevosian Yana/Shutterstock.com.

Math Mindset

$$10 = 4 + 6$$



Directions:

Math in the World: In Hopscotch, you toss an object into one of the areas 1–10 and then hop to collect it. If you hop to 3, how many more hops do you need to get to 10?

Math Mindset: Color the fingers to show the equation. How do the fingers match the equation?

Unit 6

Numbers 0–20

Big Ideas in This Unit

CC1 Sort and Describe Data CC2 How Many?

CC3 Place and Position of Numbers Model With Numbers

Questions for Investigation

- How can you use what you know about counting to figure out how many are in groups of up to 20 objects or pictures?
- What are the different ways you can show a teen number?
- How can you use what you know about counting to order and write numbers?



Explore: Packing Snacks

How can we put together or break apart numbers to make 10 in multiple ways?



Unit Story: Winners

In this story, Sara cheers on her sister, Elise, and her soccer team. In practice and in the game, there are groups of teen numbers all around.



Watch Your Knowledge Grow

This is the math you'll explore in this unit. Rate your understanding to see how your knowledge grows!

Not yet Almost I got it!

I can . . .	Before	After
Count to answer "how many?" questions for groups up to 20.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Use a strategy for counting objects in a line, circle, rectangular array, or scattered arrangement.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Count a group of objects no matter how they are arranged.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Represent teen numbers as 10 and some more.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Write and match equations to show teen numbers as 10 and some more.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Write numbers 0–20.	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>

Counting Teen Numbers

 Unit Story: Winners




Freer/Shutterstock.com

At the game, Elise's team scored 18 points.

How could you show the number 18?

Name _____

Place and Position of Numbers  Building Toward K.NBT.1, SMP.1, SMP.2, SMP.7

Explore: Packing Snacks

How can we put together or break apart numbers to make 10 in multiple ways?



I can be all of me in math class

How did Elise work hard to be the best she could be at soccer? How can you work to be the best you can be in math class?

Warm-Up



eyes on teacher

Discuss  What do you notice? What do you wonder?

Winners

Unit Story





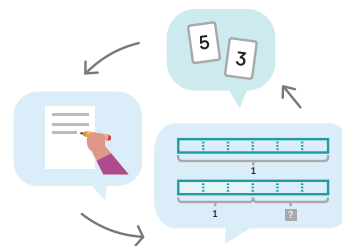
Ways to be a mathematician

- 1 I can take my time to think about a challenging problem before trying to solve it.



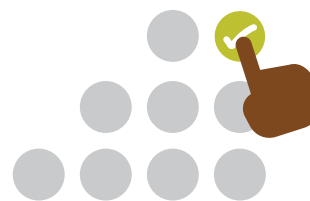
○ — ○ — ○
Not yet Almost I got it!

- 2 I can use numbers, words, and diagrams to make sense of math ideas and situations.



○ — ○ — ○
Not yet Almost I got it!

- 3 I can see how ideas are connected and use patterns to help solve problems.



○ — ○ — ○
Not yet Almost I got it!

Name _____

Sort and Describe Data

How Many?

Place and Position of Numbers

 K.CC.5, K.CC.1, K.CC.2, SMP.5, SMP.6

Getting Ready for the Game

Let's figure out how many objects are in a group.



Warm-Up



eyes on teacher



I am a doer of math.

Elise practices kicking and passing to get better at playing soccer. How can practice help you do something new?

Activity

1

Counting Larger Groups

Hands-On 

1

Discuss



I have _____ counters. I counted by _____.

Directions: Figure out how many counters are in your bag. Explain to your partner how you counted. Then trade bags with your partner.

Different Ways to Keep Track

Hands-On 

2

Discuss

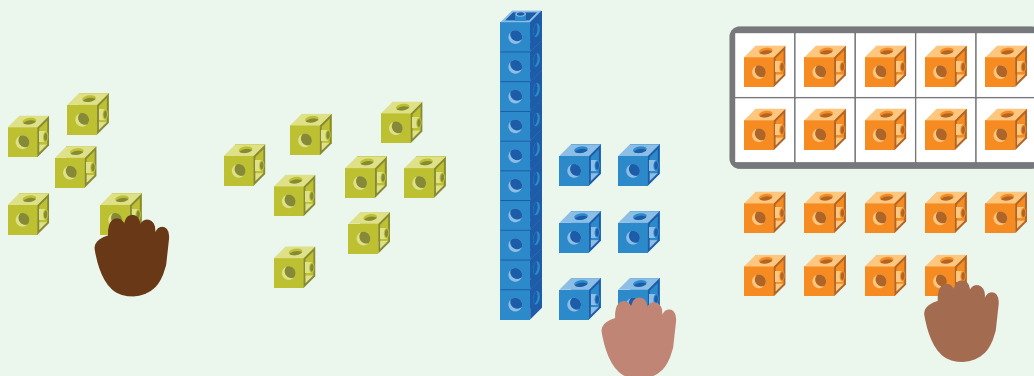


I counted _____ cubes. I kept track of the
cubes by _____.

Directions: Figure out how many cubes are in your bag. Explain to your partner how you kept track as you counted. Then trade bags with your partner.

Summary 6.02

Keeping track can help you count **teen numbers** by counting each object once and figuring out how many objects there are in total.



teen numbers 11, 12, 13, 14, 15, 16, 17, 18, 19

Practice 6.02

You'll play this Center.



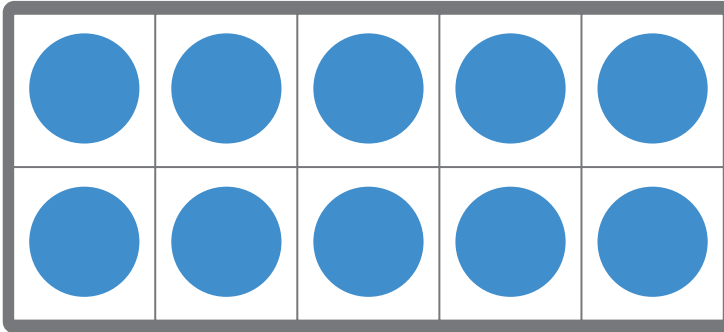
Number Race Stage 2

Let's practice writing numbers from 11 to 20.

Practice 6.02

Name _____

1



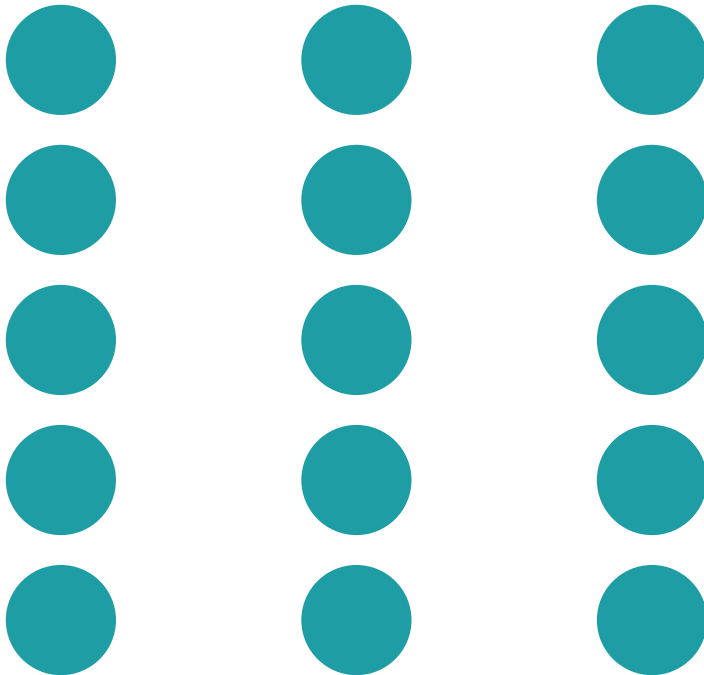
11

12



13

2



14

15

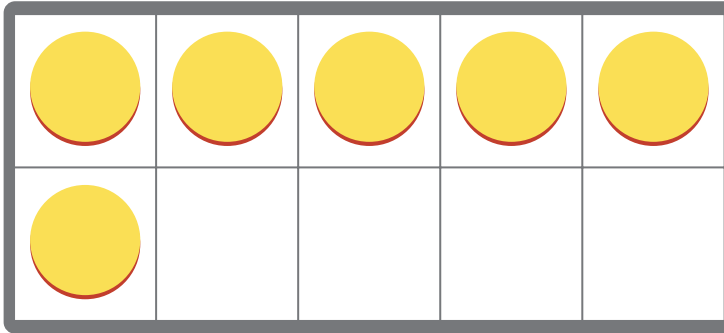
16

Directions:

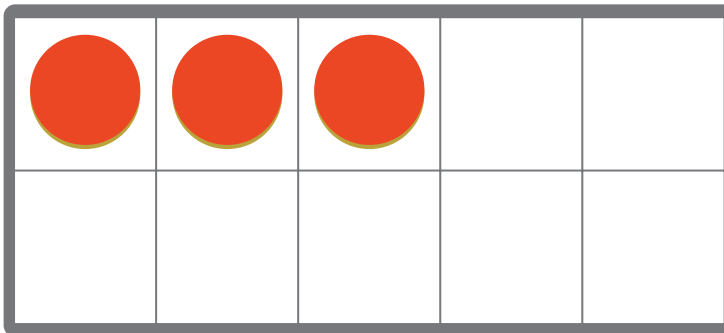
1–2. Put an object on each dot to keep track as you count. Circle the number that tells how many.

Spiral Review

3



4



5

7

9

6

6

3


Directions:

3–4. Write the number that tells how many more are needed to make 10.

5–6. Circle the number that is *more*.

Name _____


Sort and Describe Data How Many? Place and Position of Numbers

 K.CC.4.b, K.CC.5, SMP.6, SMP.8

How Many on the Field?

Let's figure out how many objects there are when the objects are rearranged.



 **We are a math community.**
Have you ever had a different answer than your partner when solving a math problem? What did you do? What did you learn?

Warm-Up



eyes on teacher

Activity

1

Counting Carefully With Friends

Sara, Wanda, and Skye all counted the same group of cubes. Can they *all* be right?

Student	Sara	Wanda	Skye
Cubes	15	16	17

1

Discuss

- I think all the students can be right because _____.
- I do not think all the students can be right because _____.

Directions: Figure out how many cubes there are. Then tell your partner if all the students can be right. Explain why or why not.

Does the Number Change?

Hands-On 

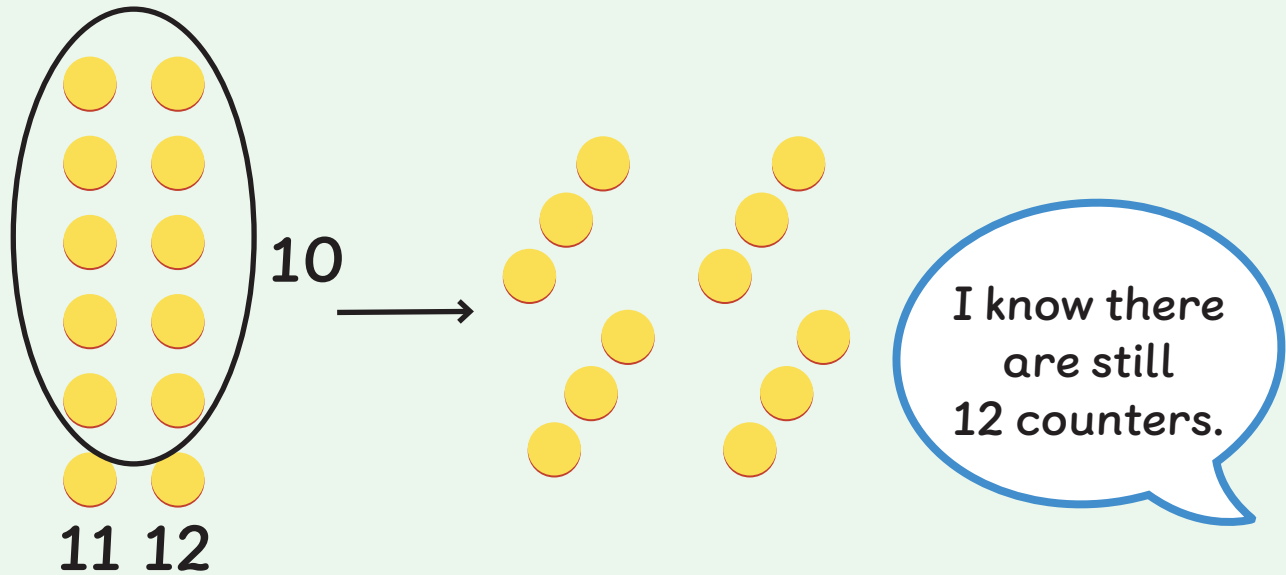
2 Discuss 

- There are _____ connecting cubes.
- I know because _____.

Directions: Work with your partner to figure out how many connecting cubes you have. Then rearrange the connecting cubes. Tell your partner how many connecting cubes there are and explain how you know.

Summary 6.03

After a group of counted objects is rearranged, you do not need to count them again because the total number of objects will be the same.



Practice 6.03

You'll play this Center.



Counting Collections Stage 2

Let's count and show how many.

Practice 6.03

Name _____

1

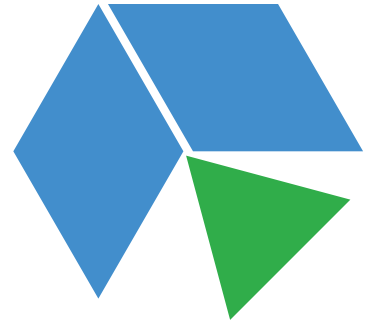
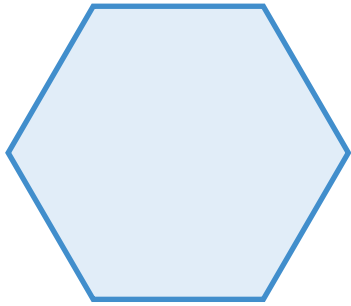
2

Directions:

1. Gather a handful of objects. Write the number to show how many objects there are. Use the 10-frame if it is helpful.
2. Rearrange the objects from Problem 1. Write the number to show how many objects there are.

Spiral Review

3

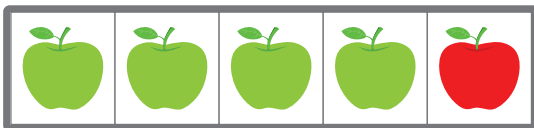


4



$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

5



$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

Directions:

3. Circle the group of shapes that could be used to fill the hexagon.

4–5. Fill in the equation to show the 2 parts that make 5.

Name _____

Sort and Describe Data

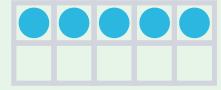
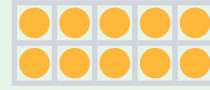
How Many?

Place and Position of Numbers

K.CC.5, SMP.7

Pass, Shoot, Score

Let's show teen numbers on fingers and 10-frames.



Warm-Up



eyes on teacher



I am a doer of math.

Think about a time you made a mistake in math class. What did you learn? How did you feel?

Activity

1

How Many Passes?

1

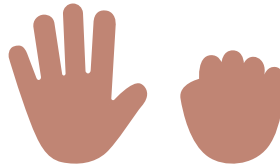
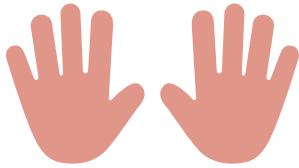
Discuss

I know we are showing _____ fingers
because _____.

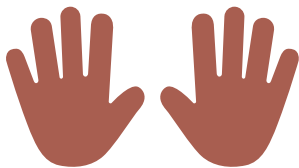
Directions: Work with your partner to show the number with your fingers. Tell your partner how you know you are showing that many fingers.

Fingers to 10-Frames

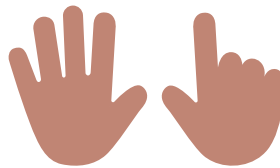
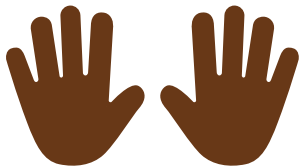
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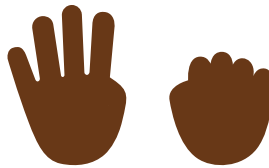
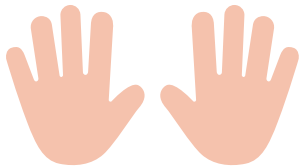
3



4



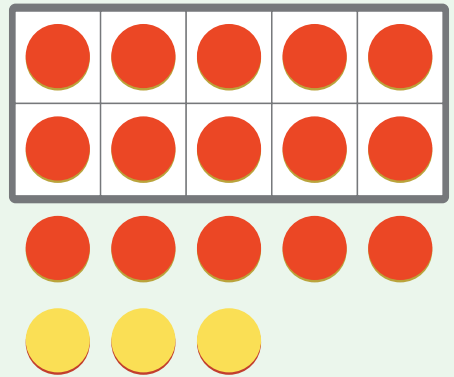
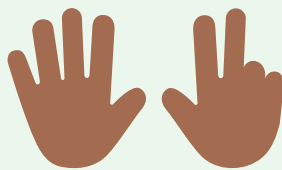
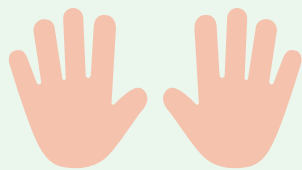
5



Directions: Work with your partner to show each number on a 10-frame. Explain to your partner how you know the number on the 10-frame matches the number shown on the fingers.

Summary 6.04

You can use fingers and 10-frames to show how a teen number is the same as 10 and some more.



Practice 6.04

You'll play this Center.



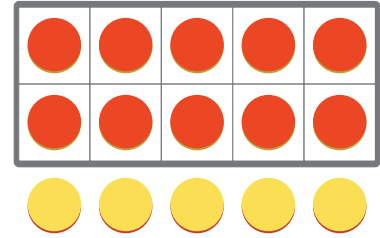
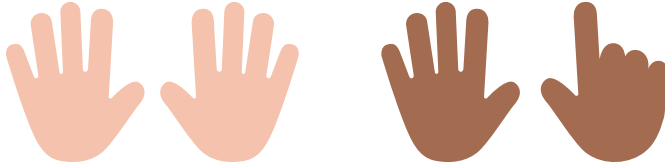
Number Race Stage 2

Let's practice writing numbers from 11 to 20.

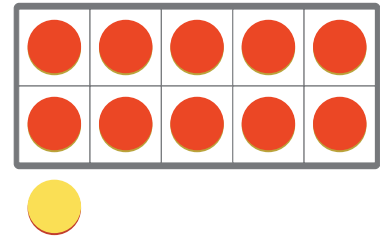
Fingers

10-Frames

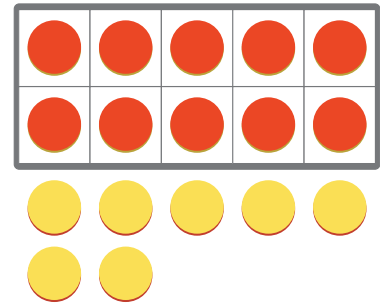
1



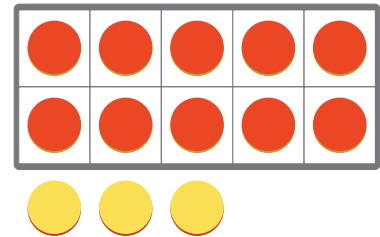
2



3



4



Directions:

1–4. Draw a line to match the set of fingers with the 10-frame that shows how many.

Spiral Review

5



$$10 = \underline{\quad} + \underline{\quad}$$

6



$$10 = \underline{\quad} + \underline{\quad}$$

7



$$10 = \underline{\quad} + \underline{\quad}$$

Directions:

5–7. Figure out how many more are needed to make 10. Fill in the equation to show the 2 parts that make 10.

Jersey Jam!

Let's match groups of jerseys to written numbers.



Warm-Up

1-2

eyes on teacher

I am a doer of math.

Why might it be helpful to share your mistakes with your math community?

Activity

1

Labeling with Logos

3

11

12

13

14

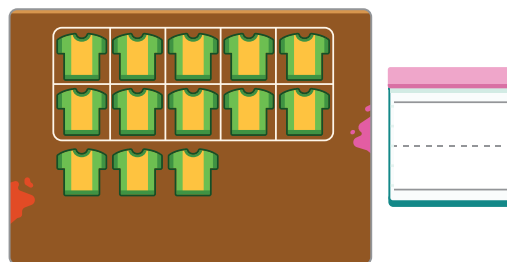
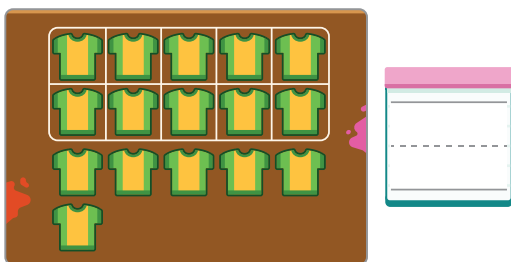
15

16

17

18

19

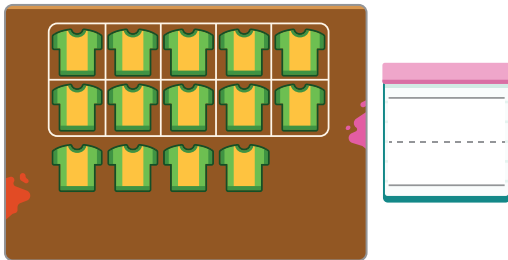
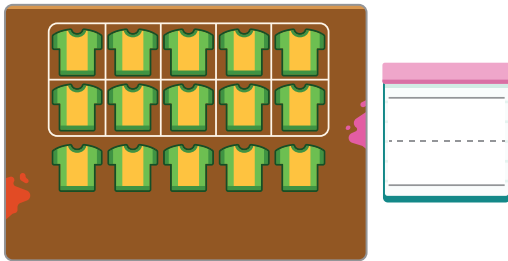
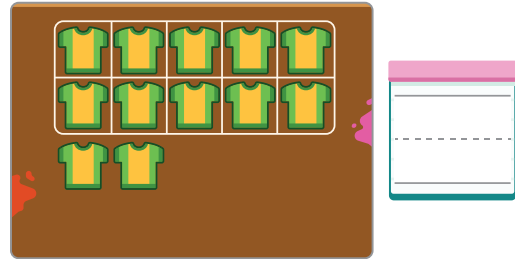
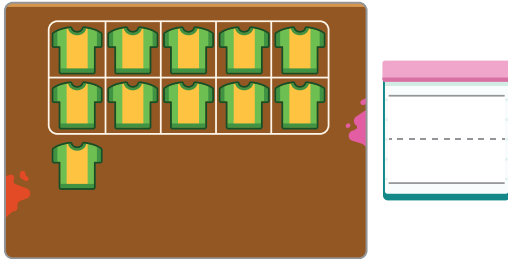


Directions:

- 3** Use the number bank to write a number that shows how many jerseys. Then explain to your partner how you figured out which number shows how many.

Labeling with Logos (continued)

3



4

Discuss 

- There are _____ jerseys.
- I know because _____.

Directions:

- 3 Use the number bank to write a number that shows how many jerseys. Then explain to your partner how you figured out which number shows how many.
- 4 Tell your partner how many jerseys and how you know.

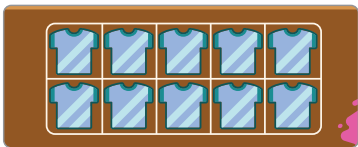
Matching the Ticket

5

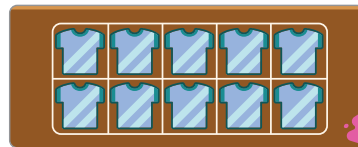


Show your thinking.

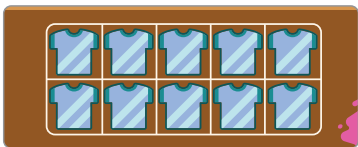
17



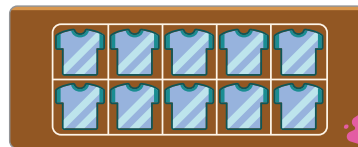
13



16



18



Directions:

5 Draw jerseys to create a group that shows the number.

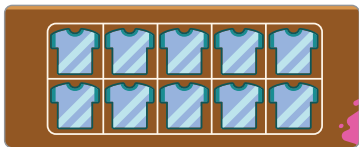
Matching the Ticket (continued)

5

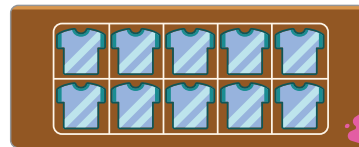


Show your thinking.

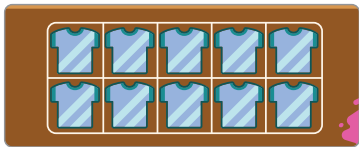
12



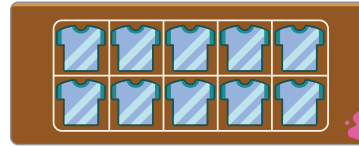
11



15



19



6

Discuss



- They are the same because _____.
- They are different because _____.

Directions:

5

Draw jerseys to create a group that shows the number.

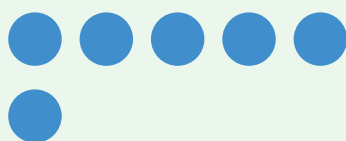
6

Tell your partner how the written numbers and the groups of jerseys are the same or different.

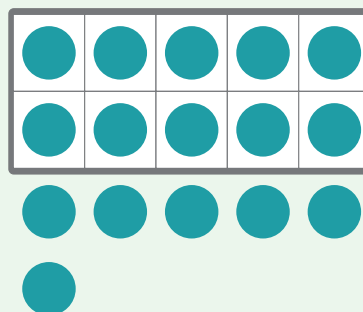
Summary 6.05

You can use patterns in written numbers to help you understand how many are in a group.

6

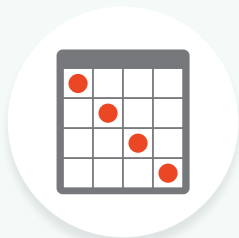


16



Practice 6.05

You'll play this Center.



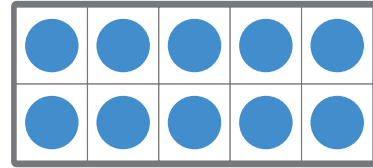
Bingo Stage 4

Let's match numbers and images.

 Draw

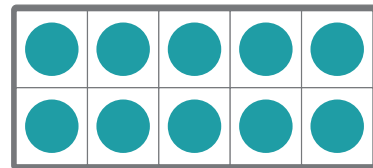
1

15



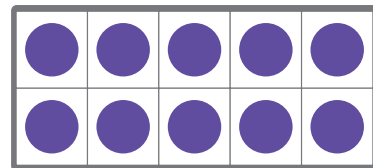
2

19



3

17

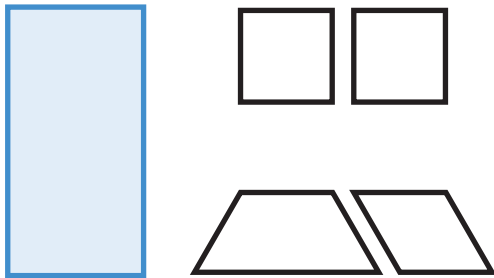


Directions:

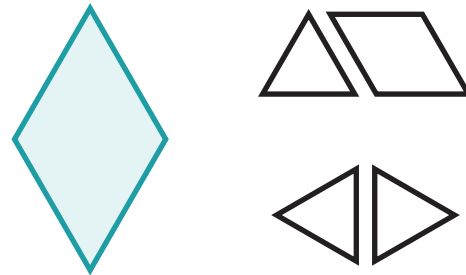
1–3. Draw dots to create a group that shows the number.

Spiral Review

4



5



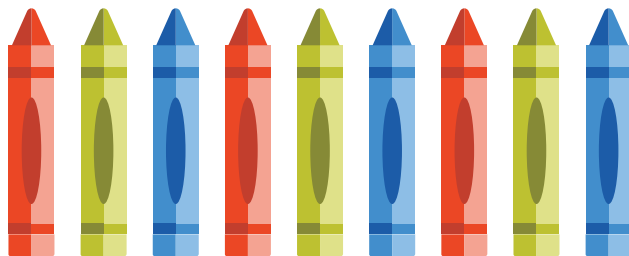
6

$$2 + 1 = \underline{\hspace{2cm}}$$

7

$$4 - 2 = \underline{\hspace{2cm}}$$

8



Directions:

4–5. Circle the group of shapes that could be used to fill in the shaded shape.

6–7. Find the value of the expression and write your answer.

8. Write the number that shows how many.

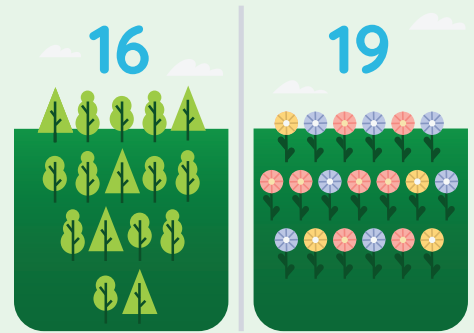
Name _____

Sort and Describe Data How Many? Place and Position of Numbers

K.CC.2, K.CC.3, K.CC.4, K.CC.5, SMP.6, SMP.7

People at the Park

Let's figure out how many pictures are in a group.



Warm-Up



eyes on teacher

We are a math community.

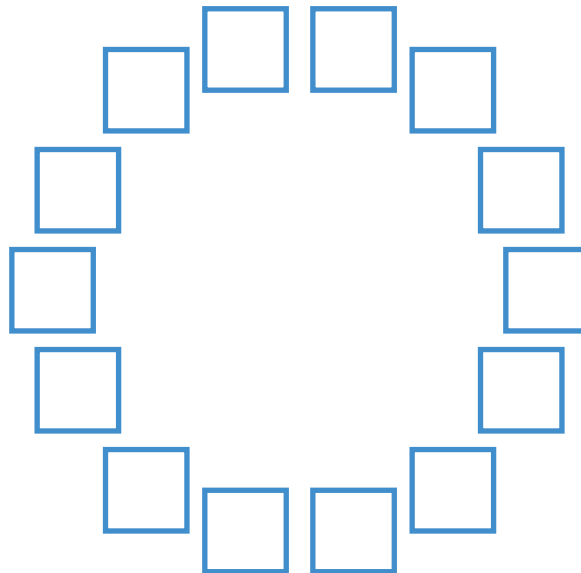
Sara and her friends supported Elise at her game. What makes you feel supported in math class?

Activity

1

Huddle Up!

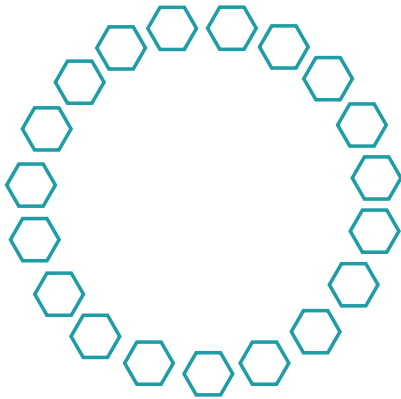
1



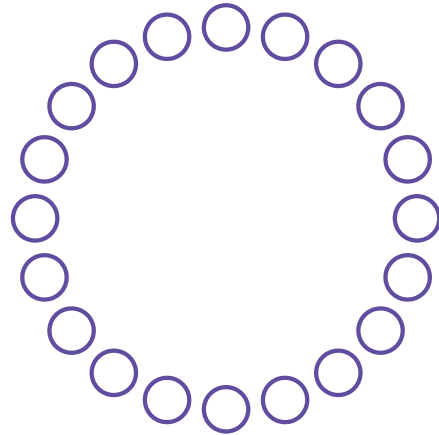
Directions: Work with your partner to show the number with your fingers and then write the number on the page. Tell your partner how you know you are showing that many fingers.

Huddle Up! (continued)

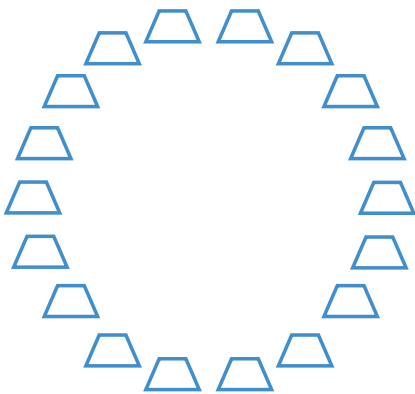
2



3



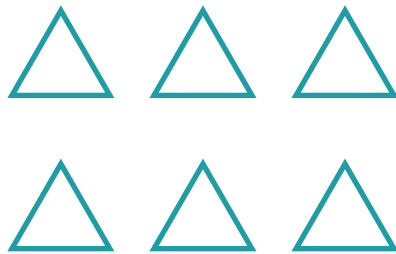
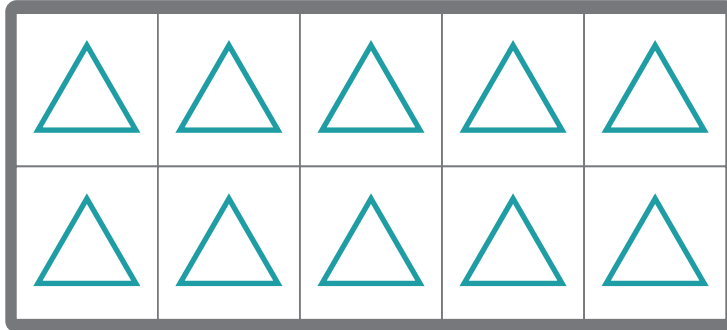
4



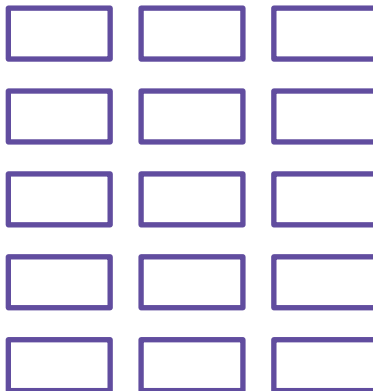
Directions: Work with your partner to show the number with your fingers and then write the number on the page. Tell your partner how you know you are showing that many fingers.

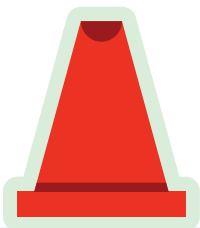
Fans in the Stands

5



6

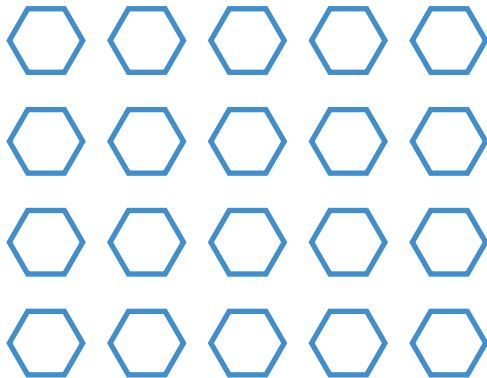




Directions: Figure out how many shapes there are. Write a number to show how many shapes there are. Explain to your partner how you figured out the number of shapes.

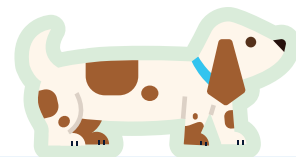
Fans in the Stands (continued)

7



8

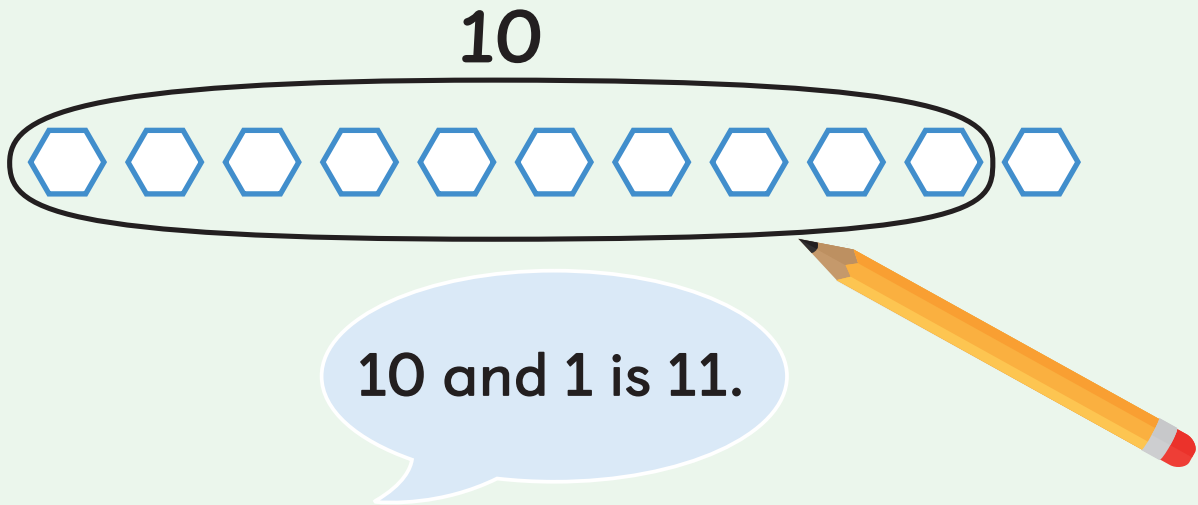




Directions: Figure out how many shapes there are. Write a number to show how many shapes there are. Explain to your partner how you figured out the number of shapes.

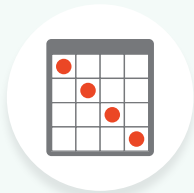
Summary 6.06

You can count a group of 11 to 20 pictures by finding 10 first and then seeing how many more there are.



Practice 6.06

Choose from these Centers.



Bingo

Stage 4



Counting Collections

Stage 2



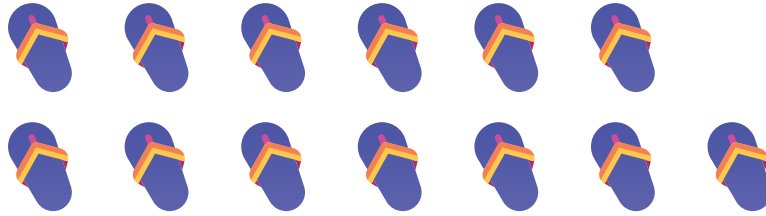
Number Race

Stage 2

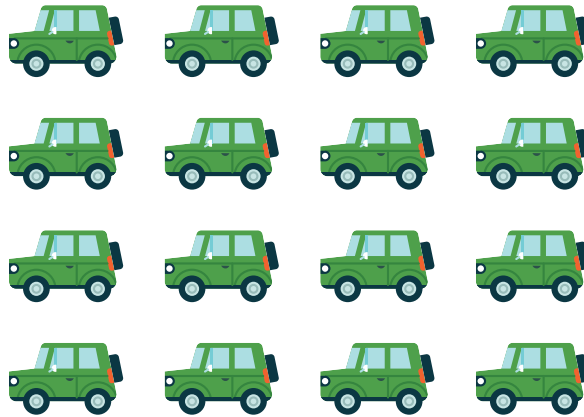
Practice 6.06

Name _____

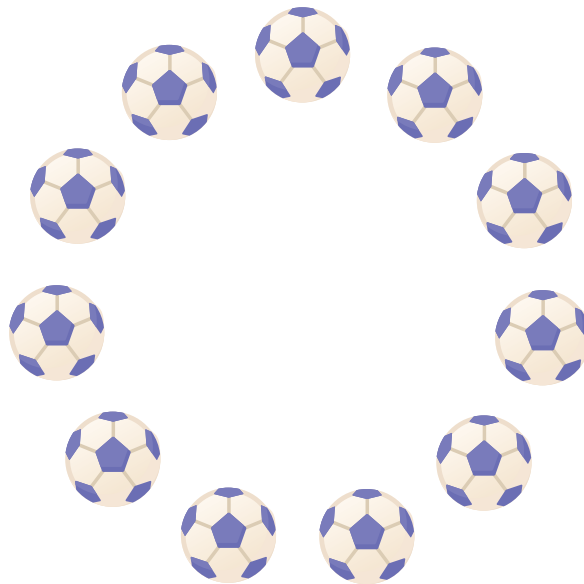
1



2



3

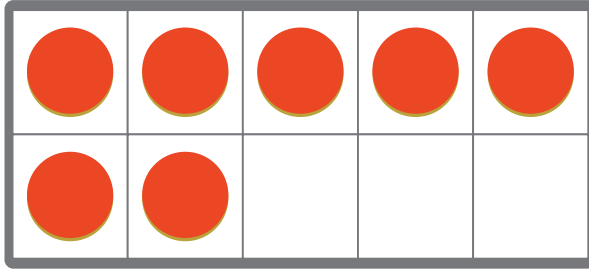


Directions:

1–3. Write the number that tells how many.

Spiral Review

4



$$\overline{\underline{10}} = \overline{\quad} + \overline{\quad}$$

5

$$5 - 1 = \overline{\quad}$$

6

$$3 - 2 = \overline{\quad}$$

Directions:

4. Figure out how many more are needed to make 10. Fill in the equation to show the 2 parts that make 10.

5–6. Find the value of the expression and write your answer.

10 Ones and Some More

Unit Story: Winners




Artazum/Shutterstock.com

In the backyard, Elise lines up 12 cones.

How could you break 12 cones apart into 10 cones and some more cones?

Name _____

How Many? Place and Position of Numbers Model With Numbers

 K.NBT.1, K.CC.2, K.CC.3, K.CC.5, SMP.7, SMP.8

After the Game

Let's make teen numbers using 10-frames, dots, and counters.



Warm-Up



eyes on teacher

We are a math community.

What can you say or do to help your classmates when they make a mistake in math?

Activity

1

Making Teen Numbers

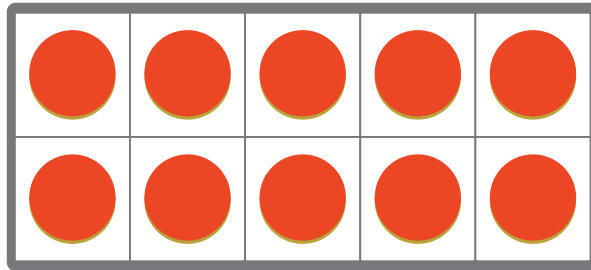
Hands-On 

1 Discuss 

- I have _____ dots.
- We have _____ dots altogether.

Directions: Tell your partner how many dots you have on your card. Then work together to figure out how many dots you have altogether.

Adding More Counters



2

3

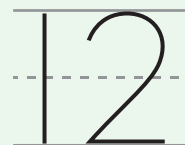
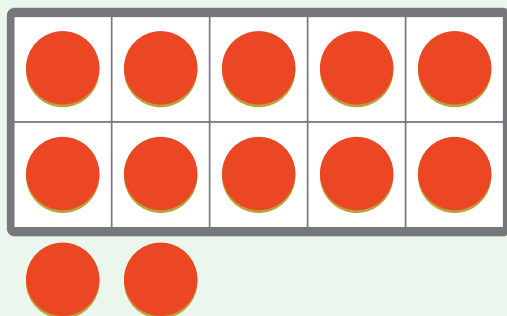
4

5

Directions: Flip over a number card. Add that many counters to your 10-frame. Write a number to show how many counters there are altogether. Explain how you figured out how many counters there are altogether.

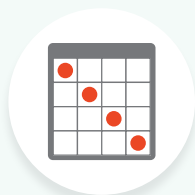
Summary 6.07

You can put together 10 and a number less than 10 to make a teen number.



Practice 6.07

Choose from these Centers.



Bingo

Stage 4



Counting Collections

Stage 2



Number Race

Stage 2

Practice 6.07

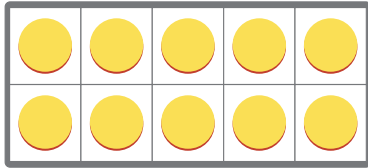
Name _____

1



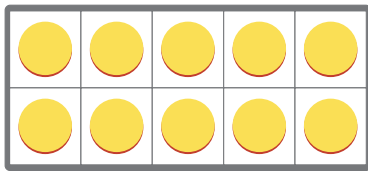
7

2



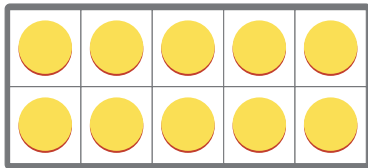
3

3



9

4



1

Directions:

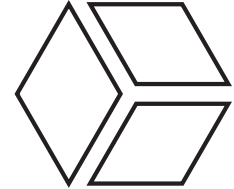
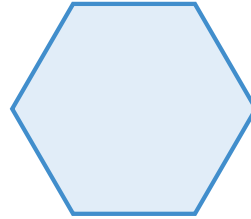
1–4. Add the number shown on the card to the number of counters on the 10-frame. Write the number that tells how many there are altogether.

Spiral Review

5



6



7

$$1 + 3 = \underline{\hspace{2cm}}$$

8

$$5 - 2 = \underline{\hspace{2cm}}$$

9

2

7

10

8

5

Directions:

5–6. Circle the group of shapes that can be used to fill the shaded shape.

7–8. Find the value of the expression and write your answer.

9. Circle the number card that shows *more*.10. Circle the number card that shows *less*.

Name _____

Model With Numbers

Place and Position of Numbers

 K.NBT.1, K.CC.5, SMP.7, SMP.8

Group Photos

Let's break apart teen numbers into 10 and some more.



Warm-Up



eyes on teacher



I am a doer of math.

What could you do if you feel confused or unsure about a math idea?

Activity

1

Posing for Pictures

Hands-On 

1 Discuss 

I notice _____.

Directions: Draw a number card. Use counters to show the number on the card. Break apart the group of counters into 2 groups — 10 counters and some more counters. Tell your partner what you notice.

Show Each Number

 Draw

2

19

3

15

4

17

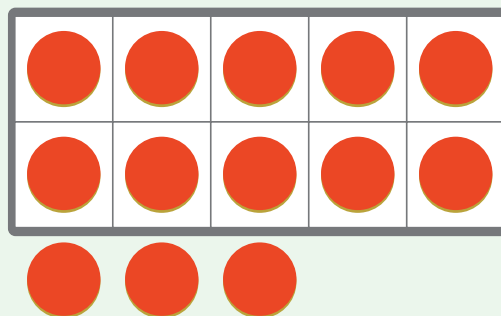
5

14

Directions: Use the 10-frame to draw dots to show the parts that make each number. Then explain to your partner how you know your drawing shows the number.

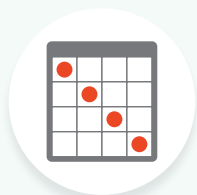
Summary 6.08

All teen numbers can be broken apart into 10 and some more.



Practice 6.08

Choose from these Centers.



Bingo

Stage 4



**Counting
Collections**

Stage 2



Number Race

Stage 2

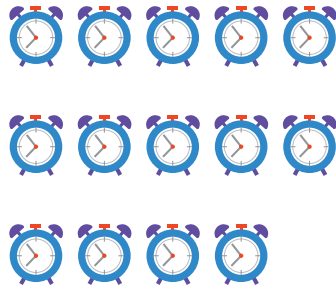


Show your thinking.

1



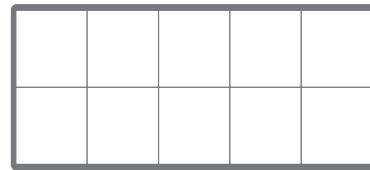
2





Draw

3



Directions:

1–2. Circle a group of 10. Write the number that tells how many.

3. Use the 10-frame to draw the parts that make the number shown on the card.

Spiral Review

4



$$\begin{array}{|c|} \hline 10 \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array}$$

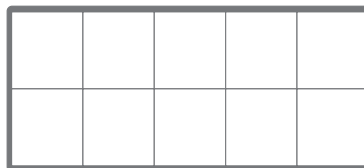
5



$$\begin{array}{|c|} \hline 10 \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array}$$

Draw

6



$$\begin{array}{|c|} \hline 10 \\ \hline \end{array} = \begin{array}{|c|} \hline \\ \hline \end{array} + \begin{array}{|c|} \hline \\ \hline \end{array}$$

Directions:

- 4–5. Figure out how many more are needed to make 10. Fill in the equation to show the 2 parts that make 10.
- 6. Fill in the 10-frame and equation to show another way to make 10.

Unit 6
Lesson
9

Name _____

Model With Numbers

Place and Position of Numbers

K.NBT.1, K.CC.1, K.CC.2, K.CC.3, SMP.7,

SMP.8

Persistent Practice

Let's look at expressions that show teen numbers.



Warm-Up

1

eyes on teacher

I am a doer of math.

When have you learned something new?

Activity

1

Setting Up

2

$10 + 1$ $10 + 8$ $10 + 3$

$10 + 3$ $10 + 9$ $10 + 6$

Directions:

2 Circle the expression that matches the group of cones.

Setting Up (continued)

2

$10 + 8$
 $10 + 2$
 $10 + 7$

$10 + 8$
 $10 + 2$
 $10 + 7$

$10 + 9$
 $10 + 2$
 $10 + 8$

$10 + 4$
 $10 + 1$
 $10 + 3$

3

Discuss

- I know they match because _____.
- I notice _____.

Directions:

2 Circle the expression that matches the group of cones.

3 Tell your partner which expression matches and how you know.

Getting Goals

4

11

12

13

14

15

16

17

18

19

$$10 + 8 = \square$$



$$10 + 4 = \square$$

**Directions:**

4 Use the number bank to write the number that shows how many soccer balls.

Getting Goals (continued)

4

11

12

13

14

15

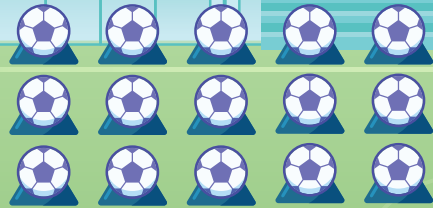
16

17

18

19

$$10 + 5 = \square$$



$$10 + 6 = \square$$



5

Discuss 

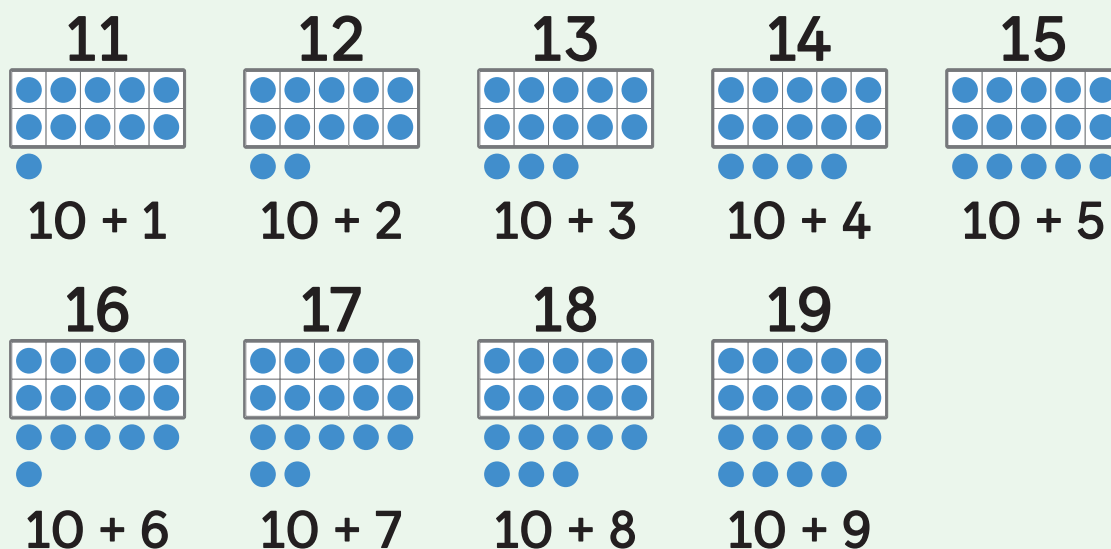
- I notice _____.
- I wonder _____.

Directions:

- 4 Use the number bank to write the number that shows how many soccer balls.
- 5 Tell your partner what you notice about the expressions and written numbers.

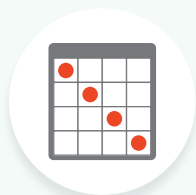
Summary 6.09

You can notice and use patterns in teen numbers.



Practice 6.09

Choose from these Centers.



Bingo

Stage 4



Counting Collections

Stage 2



Number Race

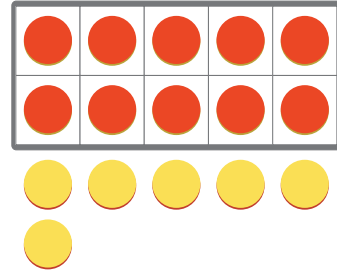
Stage 2

1

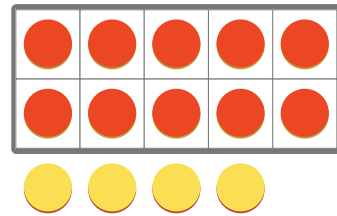
Equation

$10 + 6 = 16$

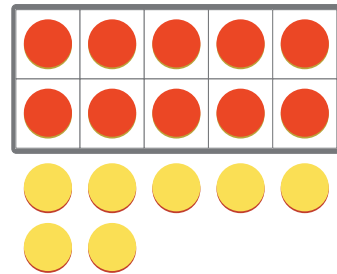
10-Frame



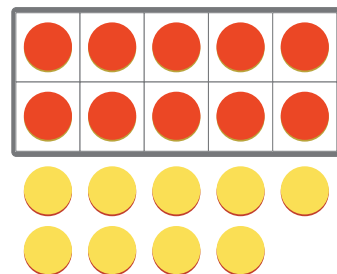
$10 + 9 = 19$



$10 + 4 = 14$



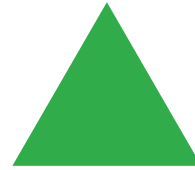
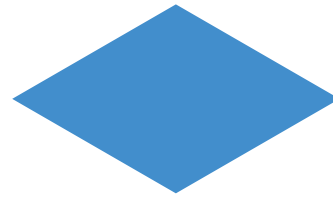
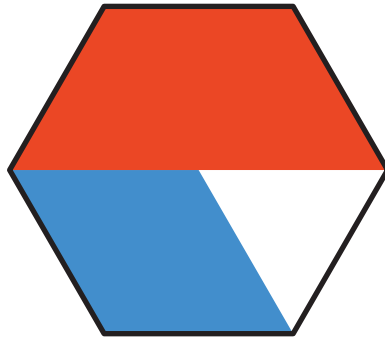
$10 + 7 = 17$

**Directions:**

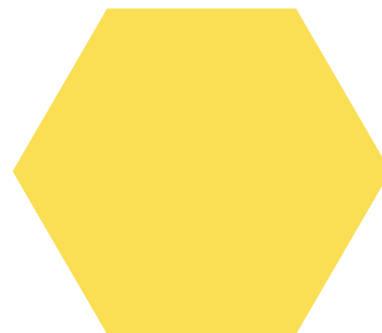
1. Draw lines to match each equation with a group of dots on a 10-frame.

Spiral Review

2




3



Directions:

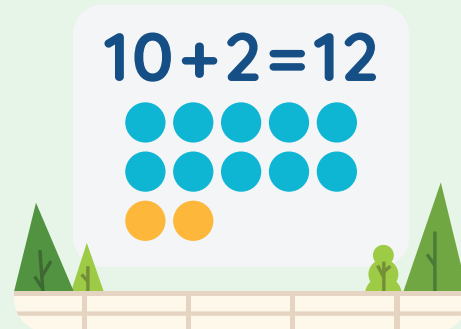
- 2. Circle the shape that can be used to fill the hexagon.
- 3. Circle the shape that can be used to fill the rectangle.

Name _____

Place and Position of Numbers Model With Numbers  K.NBT.1, K.CC.2, K.CC.3, SMP.2, SMP.5, SMP.8

Making Equations True

Let's write equations to show teen numbers.



Warm-Up



eyes on teacher



We are a math community.

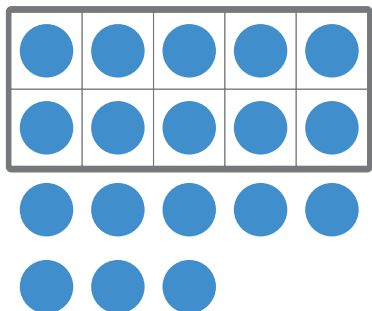
Elise says she will teach Sara how to kick a soccer ball. When have you helped someone learn something new?

Activity

1

Making the Equations True

1

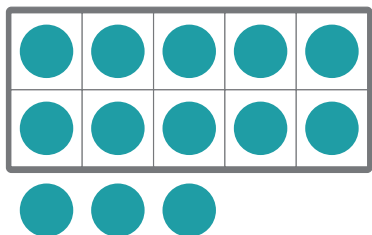


$$10 + 8 = \underline{\quad}$$

$$ = \text{-----}$$

$$ = \underline{\quad}$$

2



$$10 + 3 = \underline{\quad}$$

$$ = \text{-----}$$

$$ = \underline{\quad}$$

Directions: Fill in the numbers that make each equation true. Then explain to your partner how you know the equation is true.

What Is Missing?

7 $10 + 0 =$ _____

8 _____ + _____ = 15

9 _____ + _____ = 17

10 $10 + 1 =$ _____

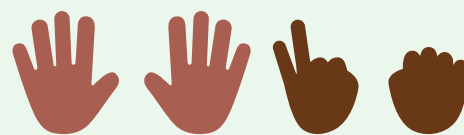
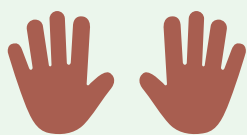


Directions: Fill in the numbers that make each equation true. You can use objects, drawings, or 10-frames to help you. Then explain to your partner how you figured out how to make each equation true.

Summary 6.10

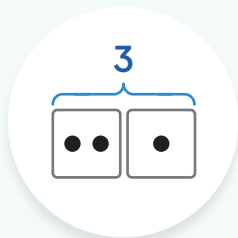
An equation is true when the amounts on both sides of the equal sign are the same.

$$10 + 2 = 12$$



Practice 6.10

You'll play this Center.



Make or Break Apart Numbers

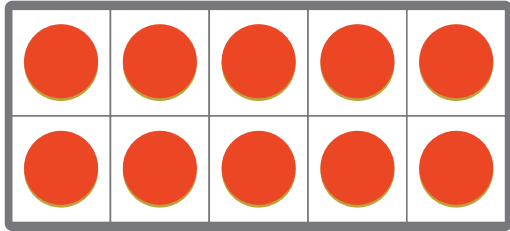
Stage 2

Let's put 2 groups together to make a number.

Practice 6.10

Name _____

1



$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} = 13$$

2



$$10 + 5 = \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

3

$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} = 18$$

Directions:

1–2. Fill in the equation to match the picture.

3. Find the numbers that make the equation true. You can use objects, drawings, or 10-frames to help you.

Spiral Review

4 $5 + 0 =$ _____

5 $3 + 1 =$ _____

6 $2 + 2 =$ _____

7

8

9

8

5

2

Directions:

4–6. Fill in the equation to show the total.

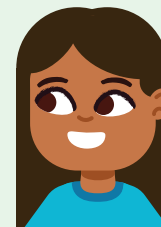
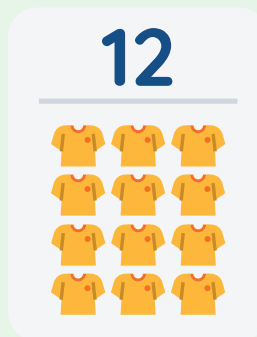
7–8. Circle the number card that shows *less*.

Name _____

Place and Position of Numbers  K.CC.3, K.CC.1, K.NBT.1, SMP.7, SMP.8

Organizing Jerseys

Let's order and think about different ways to show numbers up to 20.



Warm-Up



eyes on teacher

We are a math community.
What can you and your math community do to help you be successful in math class?

Activity

1

Ordering Numbers

1

Discuss 

- The first number is _____.
- The next number is _____.
- The number after that is _____.

Directions: Work with your group to put the number cards in order. Then write the numbers in order.

Ordering Numbers (continued)

_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----
_____	_____	_____	_____	_____
-----	-----	-----	-----	-----

Directions: Work with your group to put the number cards in order. Then write the numbers in order.

Make a Match

Hands-On 

2 Discuss 

I know this card matches this number
because _____.



Directions: Draw a card. Figure out which teen number the card shows and match it to that teen number on your Sorting Mat. Explain how you know the card and the number match.

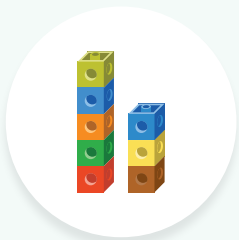
Summary 6.11

You can write, read, count, show, and order numbers up to 20.

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 13, 14, 15, 16, 17, 18, 19, 20

Practice 6.11

You'll play this Center.



Towers Stage 3

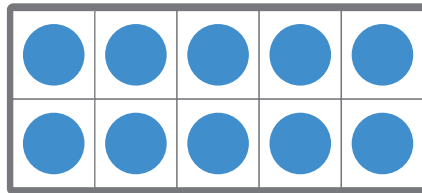
Let's count and build a tower to 20.

1

11	_____	13	_____	15
_____	17	_____	_____	20

2

 Draw



$$\begin{array}{c}
 \text{_____} \\
 \text{-----} \\
 \text{_____}
 \end{array}
 +
 \begin{array}{c}
 \text{_____} \\
 \text{-----} \\
 \text{_____}
 \end{array}
 = 16$$

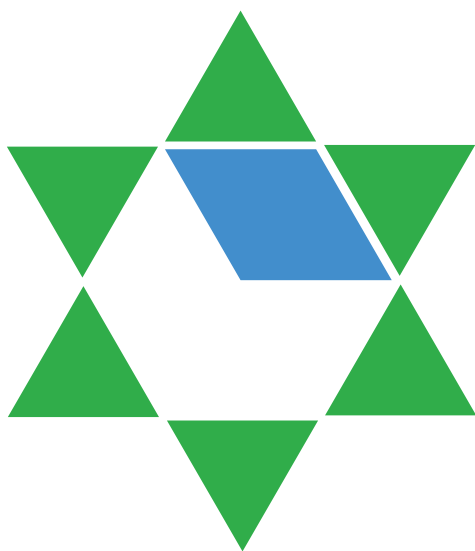
Directions:

1. Fill in the missing numbers.
2. Draw dots and fill in the equation to show 16.

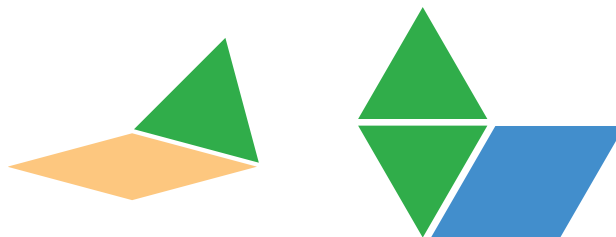
Spiral Review

3 $4 + 1 =$ _____

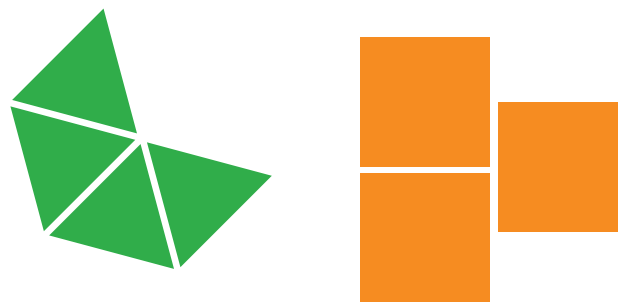
4 $5 - 4 =$ _____



5



6



Directions:

3–4. Find the value of the expression and write your answer.

5–6. Shawn is building a sun with pattern blocks. Shawn cannot find a trapezoid.
 Circle the shapes that Shawn could use to fill in the sun.



Notes:

Math at Work

Do you like to play or watch sports? What math might you see at a sports game?

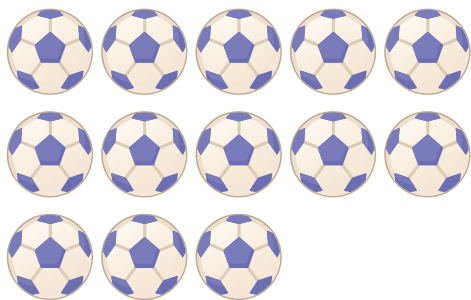
Sports coaches train athletes for games. They might use teen numbers as they keep track of the sports equipment or players on their team.



Roman Samborskiy/Shutterstock.com. Pixel-Shot/Shutterstock.com.

Math in the World

 Draw



Math Mindset

 Draw

$$10 + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} = 16$$

Directions:

Math in the World: How many soccer balls are there? How can you draw a 10-frame to help you?

Math Mindset: Write a number to make a true equation. How do you know the equation is true?

Unit 7

Solid Shapes All Around Us

Big Ideas in This Unit

- cc1 Sort and Describe Data
- cc2 How Many? Bigger or Equal?
- cc3 Being Flexible Within 10 Model With Numbers
- cc4 Shapes in the World Making Shapes From Parts

Questions for Investigation

- How can we distinguish between flat shapes and solid shapes?
- How can we describe and compare solid shapes?
- How can solid shapes be put together to make larger shapes?



Explore: River's Projects

What kinds of shapes can we use to make one of River's projects?



Unit Story: Everybody Needs Help Sometimes

In this story, River makes and repairs things made of solid shapes to help community members solve problems.


Watch Your Knowledge Grow

This is the math you'll explore in this unit. Rate your understanding to see how your knowledge grows!

— —
Not yet Almost I got it!

I can . . .	Before	After
Name solid shapes.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Describe and compare solid shapes.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Describe objects using length and weight measurements.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Use shapes to build larger shapes.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Build models of shapes using objects and clay.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Count solid shapes in a large shape.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Compare the amount of shapes in a larger shape.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>
Solve story problems about shapes.	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>	<input type="radio"/> — <input type="radio"/> — <input type="radio"/>

Exploring Solid Shapes

 Unit Story: Everyone Needs Help Sometimes



AnnaStills/Shutterstock.com

River used flat shapes in his plan for the birdhouse and solid shapes to build it.

How are flat shapes and solid shapes alike and different?

Name _____

Shapes in the World

Making Shapes From Parts

Building Toward 1.G.1, SMP.1, SMP.3, SMP.7

Explore: River's Projects

What kinds of shapes can we use to make one of River's projects?



Warm-Up



eyes on teacher

Discuss What do you notice? What do you wonder?

Everyone Needs
Help Sometimes

Unit Story





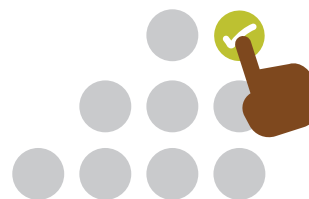
Ways to be a mathematician

- 1 I can take my time to think about a challenging problem before trying to solve it.



Not yet Almost I got it!

- 2 I can see how ideas are connected and use patterns to help solve problems.



Not yet Almost I got it!

Solid Shapes Around Us

Let's find solid shapes in the world.



Warm-Up



eyes on teacher



We are a math community.

River helped his neighbors.

What are some ways that you help others in our classroom?

Activity

1

Solid Shape Search

Hands-On 

1 Discuss 

My object matches this shape because _____.

Directions: Find objects around the room that look like solid shapes. Explain to your partner how the shape and your object look the same. Then put your object in a group with the matching shape.

Making Shapes in the World

Hands-On 

2 Discuss 

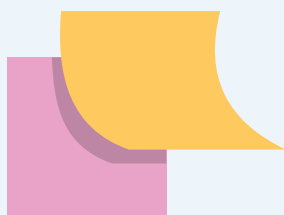
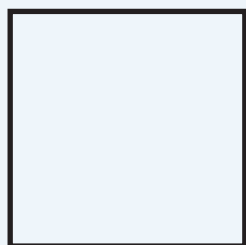
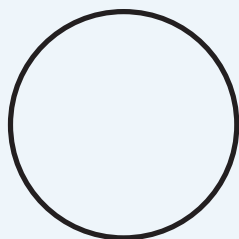
- This solid shape has _____.
- I made this solid shape by _____.

Directions: Use clay to make each solid shape. Describe the shape you made to your partner and explain how you made it.

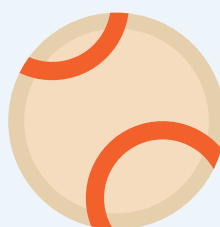
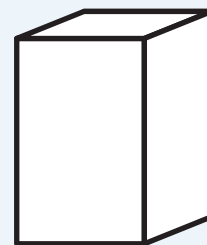
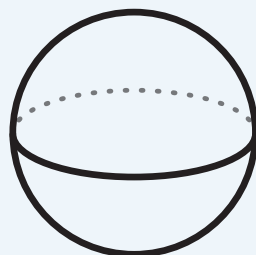
Summary 7.02

We can find objects in our world that look like **flat shapes** and **solid shapes**.

Flat Shapes



Solid Shapes



Practice 7.02

Choose from these Centers.



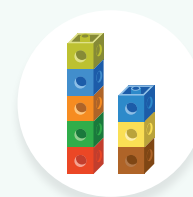
Counting
Collections

Stage 2



Solid Shapes

Stage 2

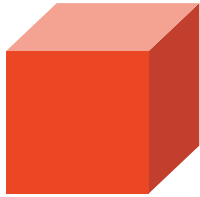


Towers

Stage 3

 Draw

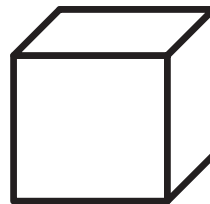
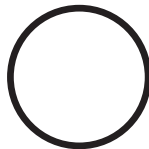
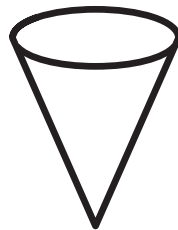
1



2



3



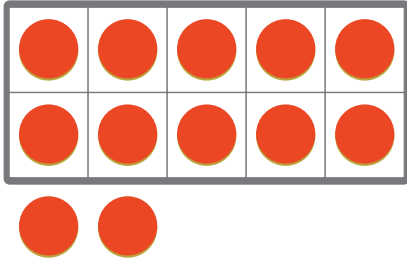
Directions:

1–2. Find and draw an object that matches the solid shape.

3. **Circle** the solid shapes. **Cross out** the flat shapes.

Spiral Review

4



$$12 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$$

5



$$10 + 7 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$$

6

10	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	14	15
16	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$	20	

Directions:


4–5. Fill in the missing parts of the equation to match the picture.

6. Write each missing number.

Unit 7
Lesson
3

Name _____

Sort and Describe Data Shapes in the World Making Shapes From Parts

 K.MD.1, K.MD.2, SMP.3

Heavier or Lighter?

Let's find out which object is heavier and which is lighter.



Warm-Up



eyes on teacher

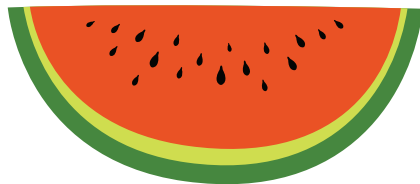
I can be all of me in math class.
What objects do you see, at home or at school, that look like solid shapes?

Activity

1

Comparing Boxes and Bags

heavier



lighter



1

Discuss



- _____ is heavier than _____.
- _____ is lighter than _____.

Directions: Compare the weights of the bags and tell your partner what you notice using *heavier than* and *lighter than*.

Heavier or Lighter?

2

Draw 

Object 1	Object 2

3

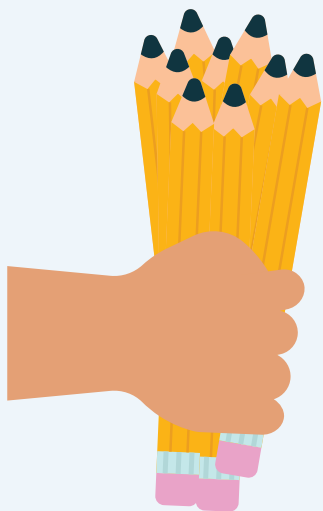
Discuss 

- _____ is heavier than _____.
- _____ is lighter than _____.

Directions: Choose **2** objects. Draw a picture of each object. Circle the object that is *heavier* and draw an **X** on the object that is *lighter*. Then explain how you know which object is *heavier* and which is *lighter*.

Summary 7.03

You can compare the weights of 2 objects. Holding both objects can help you figure out which is **heavier** and which is **lighter**.



Practice 7.03

Choose from these Centers.



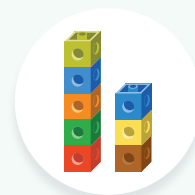
Counting
Collections

Stage 2



Solid Shapes

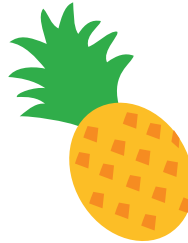
Stage 2



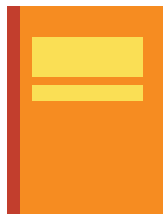
Towers

Stage 3

1



2

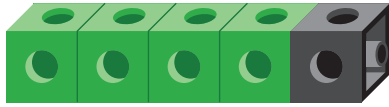


Directions:

1. Circle the object that is *heavier*.
2. Circle the object that is *lighter*.

Spiral Review

3



expression: _____ + _____
 _____ + _____

4



expression: _____ + _____
 _____ + _____

5



expression: _____ + _____
 _____ + _____

Directions:

3–4. Write an expression to show the 2 parts.


5. Show another way to break the number 5 into 2 parts. Write an expression to show your thinking.

Name _____

Sort and Describe Data

Shapes in the World

Making Shapes From Parts

 K.MD.2, K.MD.1, SMP.1, SMP.3

Which Can Hold More?

Let's figure out which object holds more.



Warm-Up



eyes on teacher

I can be all of me in math class.
What can you do if things do not go as planned in math class?

Activity

1

River's Bird Feeder

1

Discuss

- Container _____ can hold more water because _____.
- Container _____ can hold less water because _____.

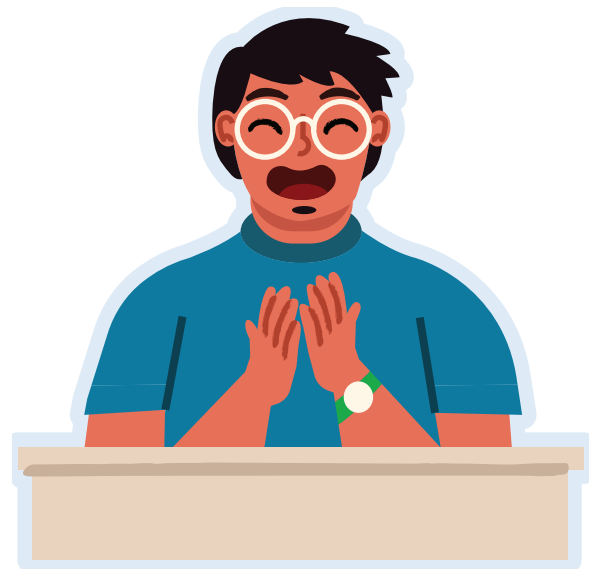
Directions: Tell your partner which container you predict can hold *more* water. Explain your prediction.

Which Container Can Hold More Water?

2

Discuss 

- This container holds more because _____.
- This container holds less because _____.



Directions: Tell your partner which container holds *more* and which container holds *less*. Explain how you know.

Summary 7.04

You can compare objects by measuring which holds more or which holds less.



Smart Calendar/Shutterstock.com



Design tech art/Shutterstock.com

Practice 7.04

Choose from these Centers.



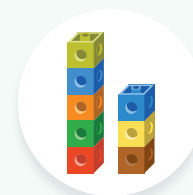
Counting
Collections

Stage 2



Solid Shapes

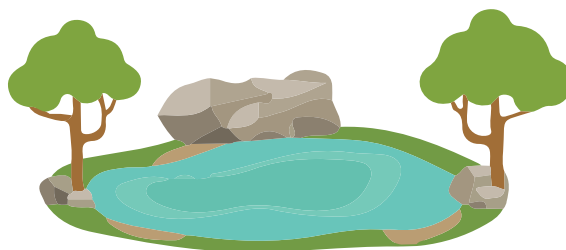
Stage 2



Towers

Stage 3

1



2



3

 Draw



Directions:

1. Circle the container that can hold *more* water.
2. Circle the container that can hold *less* water.
3. Draw a container that can hold *more* water than the glass.

Spiral Review

4



5



6



7



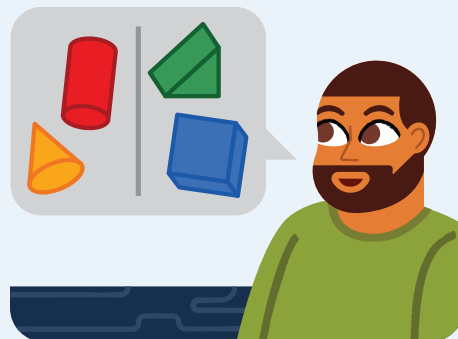
Directions:

4–5. Circle a group of 10. Write the number that tells how many.

6–7. Circle the number that is *less*.

Sorting Solid Shapes

Let's describe how solid shapes are alike and different.



Warm-Up



eyes on teacher



We are a math community.

Have you ever had a different idea than a math partner?
What did you do?

Activity

1

Comparing Solid Shapes

Hands-On

1

Discuss

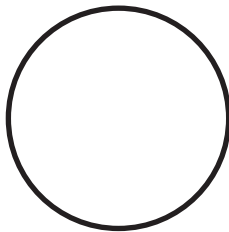
- These shapes are alike because _____.
- These shapes are different because _____.

Directions: Choose **2** shapes. Tell your partner at least 1 way the shapes are *alike* and 1 way they are *different*.

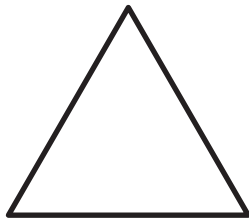
Sorting Shapes

2

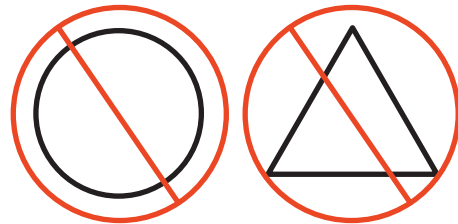
Circles



Triangles



Neither



3

 least

 greatest

Directions: Sort solids into categories based on the shape of their faces. Count how many are in each category. Then, order the categories from the least number of faces to the greatest.

Sorting Shapes (continued)

4

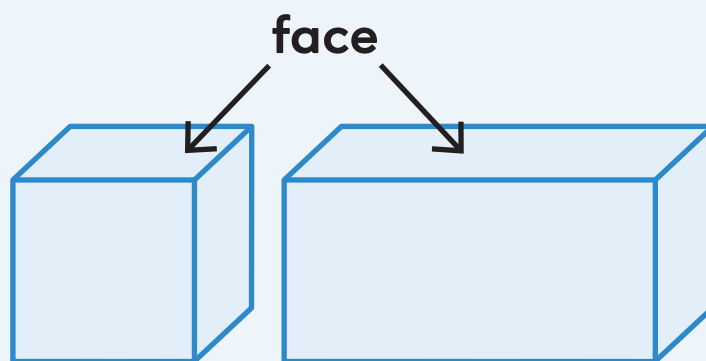
Discuss 

There are more solids with _____ faces than _____ faces. I know because . . .

Directions: Share with your partner which category has the most solids and explain how you know.

Summary 7.05

Solid shapes have **faces**. We can compare shapes by looking at the faces of a shape.



Practice 7.05

You'll play this Center.



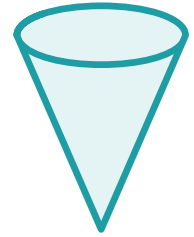
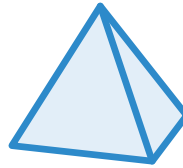
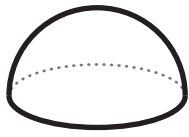
Solid Shapes Stage 3

Let's describe solid shapes so your partner can find them.

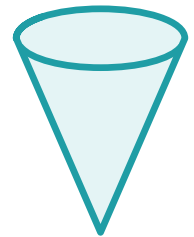
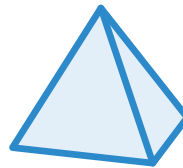
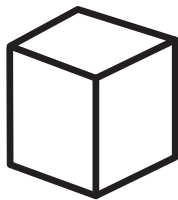
Practice 7.05

Name _____

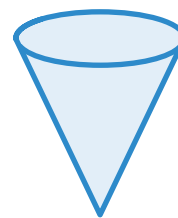
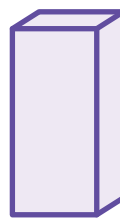
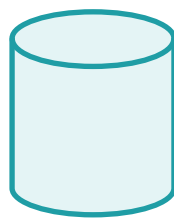
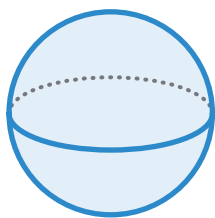
1



2



3



Directions:

1–2. Circle the group the shape belongs in.

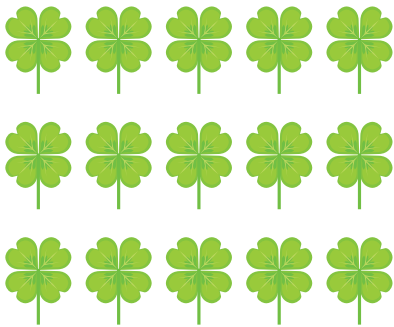
3. Cross out the shape that does *not* belong in the group. Explain why it does not belong.

Spiral Review

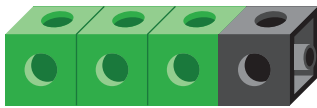
4



5



6



+

7



+

Directions:

4–5. Write the number that tells how many.

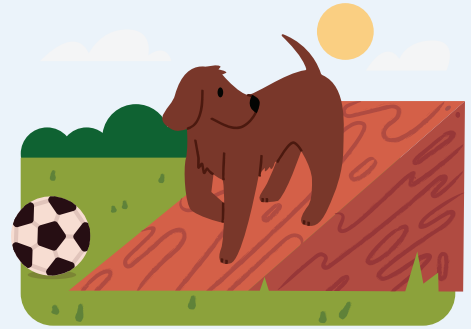
6–7. Write an expression to show the 2 parts.

Name _____

Shapes in the World K.G.2, K.G.1, K.G.3, K.G.4, K.G.5, SMP.3, SMP.6, SMP.7

What's That Shape?

Let's name solid shapes.



Warm-Up



eyes on teacher

I am a doer of math.

What tools have you used in math class this year? How have they helped you?

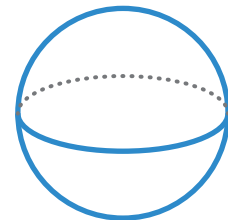
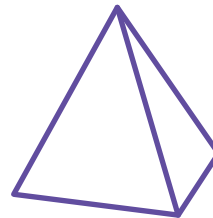
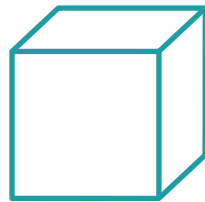
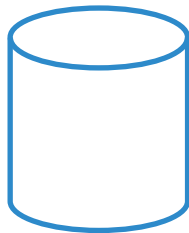
Activity

1

Shape Clues

Let's look at 3 groups of shapes.

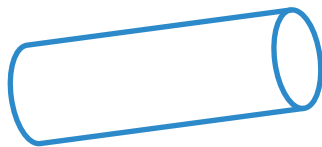
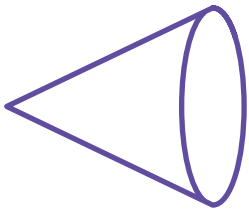
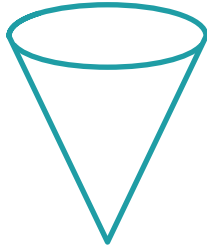
1 Which shape belongs in Group 1?



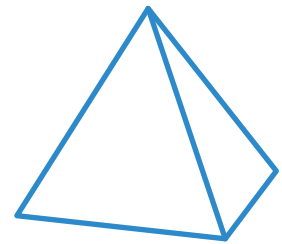
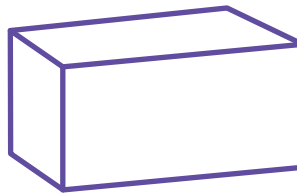
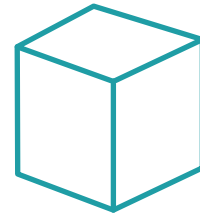
Directions: Circle 1 shape that belongs in Group 1. Explain to your partner why you chose that shape.

Shape Clues (continued)

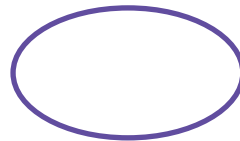
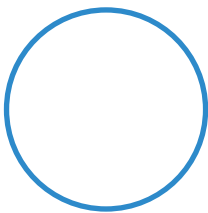
Group 1



Group 2



Group 3



Directions: Circle **1** shape that belongs in Group 1. Explain to your partner why you chose that shape.

Making Solid Shapes

Hands-On 

2 Discuss 

- This shape looks like _____.
- We can call this shape a _____.

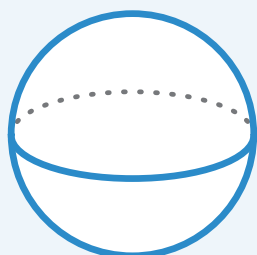
Directions: Figure out which solid shape looks like the object. Use clay to make the same shape.

Summary 7.06

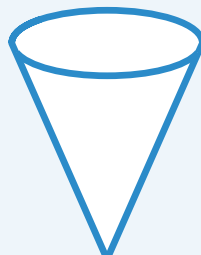
You can figure out the names of solid shapes, such as cylinders, spheres, cones, and cubes, by noticing their parts.



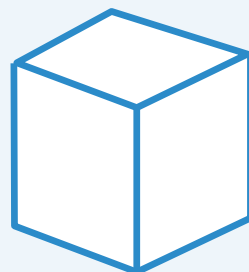
cylinder



sphere



cone



cube

Practice 7.06

You'll play this Center.



Solid Shapes

Stage 4

Let's guess the solid shape without looking at it.

Practice 7.06

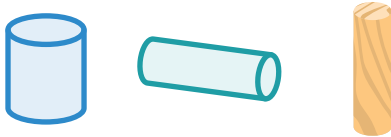
Name _____



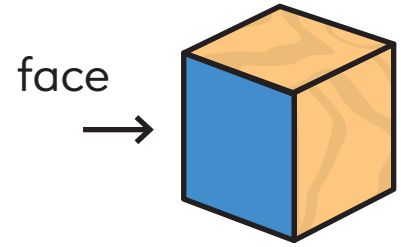
cube



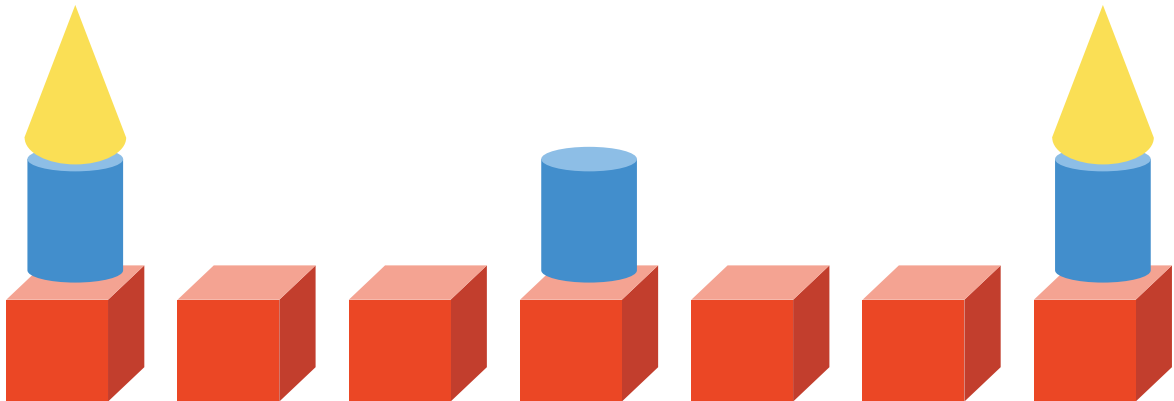
cone



cylinder



1



Directions:

1. Diego and Clare used solid shapes to build a wall. Use the words to name and describe the shapes that Diego and Clare used.

Name _____

 Draw

2

3



Spiral Review

4

7

5

5

2

5

6

13



17 18

Directions:


2–3. Find an object that looks like a solid shape. Draw the object and tell your partner its name.

4–5. Circle the number that is *less*.

6. Fill in each missing number.

Name _____

Shapes in the World Making Shapes From Parts

 K.G.5, K.G.2, K.G.4, K.MD.1, K.MD.2, SMP.6, SMP.7

Building Solid Shapes

Let's build solid shapes and describe them.



I am a doer of math.
When did you make something you were proud of in math class?

Warm-Up



eyes on teacher

Activity

1

Building Prisms

Hands-On 

1 Discuss 

- Our prisms are alike because _____.
- Our prisms are different because _____.

Directions: Build a prism using connecting cubes. Compare your prism to your partner's prism and explain how your prisms are alike and how they are different.

Build Shapes

Hands-On 

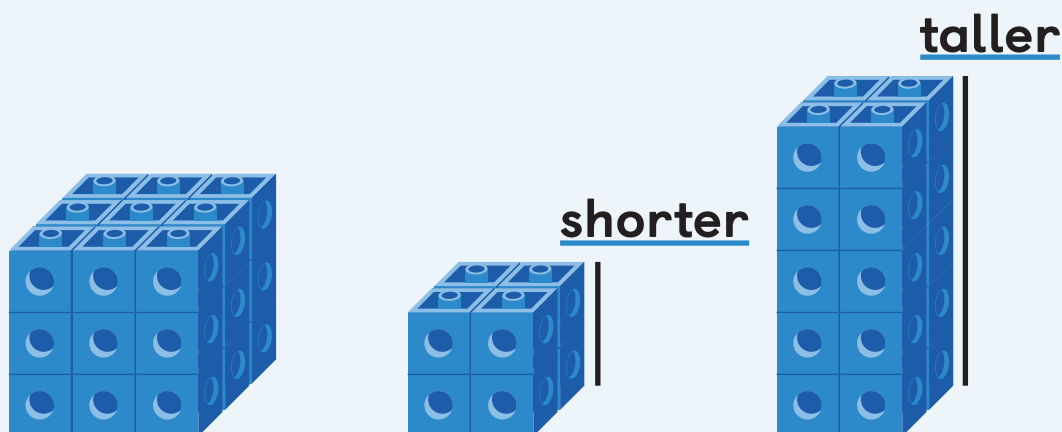
2 Discuss 

- These shapes are the same because _____.
- These shapes are different because _____.

Directions: Use straws and clay to build a solid shape. Then compare your shape with your partner's shape to see if they match.

Summary 7.07

Prisms have rectangular and square faces. Cubes are a type of prism where all the faces are the same length. Other prisms can be **shorter** or **taller**.



Practice 7.07

Choose from these Centers.



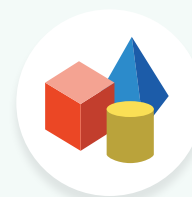
Build Shapes

Stage 3



Solid Shapes

Stage 3



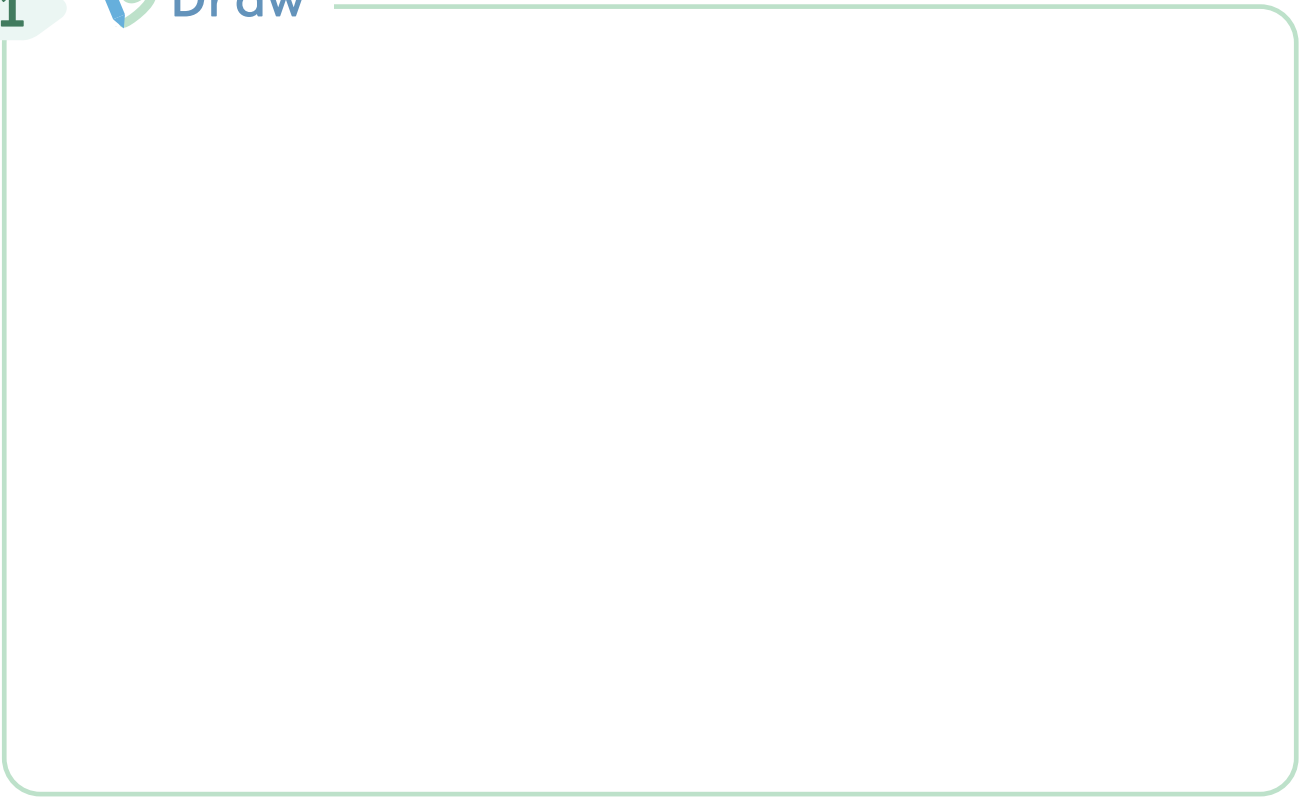
Solid Shapes

Stage 4

Name _____

1

 Draw



2

Discuss 

I used _____ to make _____.

Directions:

1. Use solid shapes to build something. Draw a picture of what you made.
2. Tell your partner about what you made. Use shape names if it is helpful.

Spiral Review

--	--	--	--	--

3

$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

$$5 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

Directions:

3. Find as many ways as you can to make 5. Fill in the equations. You can use objects and the 5-frame if they are helpful.

Name _____

Shapes in the World

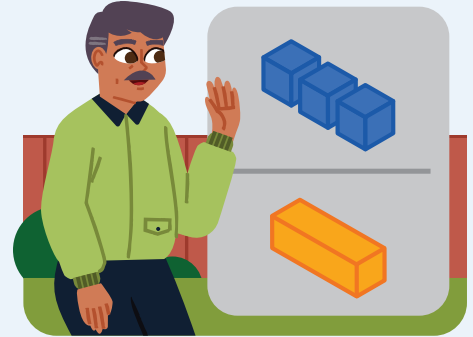
Making Shapes From Parts

K.G.6, K.G.1, K.G.5, K.OA.5, SMP.1 SMP.6,

SMP.7, SMP.8

Putting Solid Shapes Together

Let's build with solid shapes.



We are a math community.

How can you celebrate each other's work in math class?

Warm-Up



eyes on teacher

Activity

1

Building With Solid Shapes

Hands-On 

1

Discuss



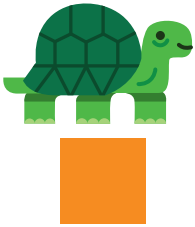
- I made a _____.
- I used _____ to make _____.

Directions: Use solid shapes to build something for our community. Describe what you built to your partner.

Building Matching Shapes

Hands-On 

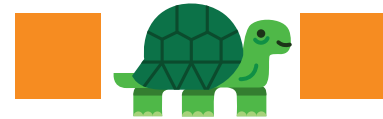
2 Discuss 



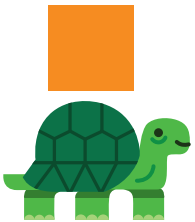
above



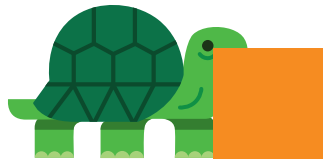
in front of



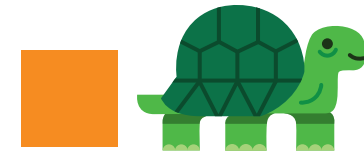
between



below



behind

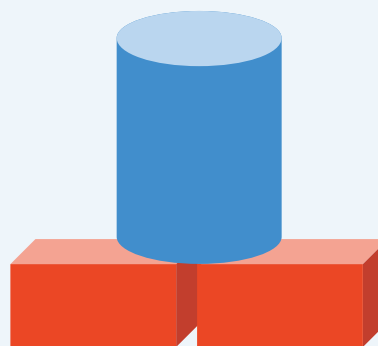
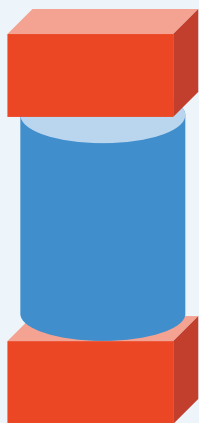


beside/ next to

Directions: Use solid shapes to build an object that matches your partner's object. Name or describe the shapes you are using and tell your partner where you are putting them.

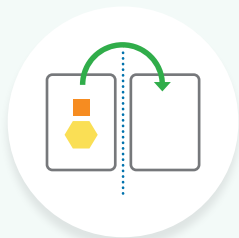
Summary 7.08

Solid shapes can be put together in different ways to make larger shapes.



Practice 7.08

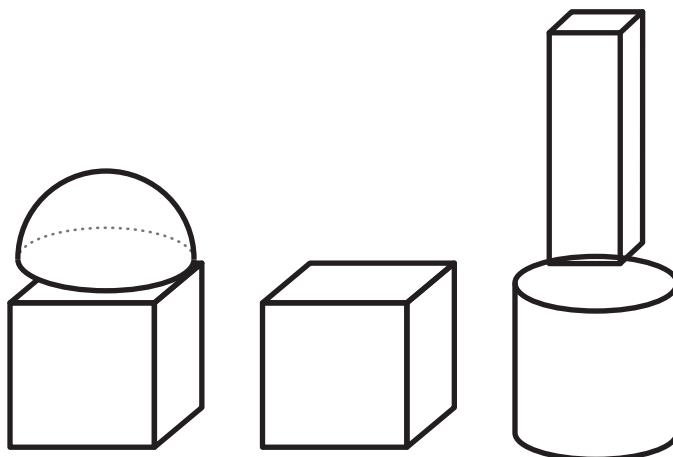
You'll play this Center.



Match Mine Stage 2

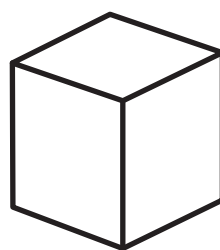
Let's build and describe shapes.

1



2

 Draw



Directions:

1. Circle the shape that is *next to* the cylinder. Put an X on the shape that is *above* the cube. Color in the shape that is *below* the rectangular prism.
2. Draw a circle *next to* the cube and a triangle *above* the cube.

Spiral Review

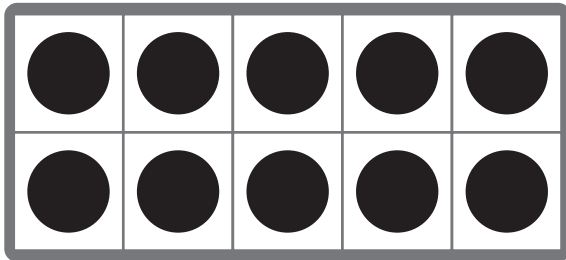
3



4



5



$$\begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array} = 15$$

Directions:3–4. Circle the number that is *more*.

5. Draw more under the 10-frame to show 15. Write the numbers that make the equation true.

Adding and Subtracting With Shapes

✦ Unit Story: Everyone Needs Help Sometimes



Jason Finn/Shutterstock.com

River put shapes together to build and repair things in his community.

How can you use numbers to show how many shapes you put together?


Building Birdhouses

Let's match expressions with values 1-5.



Warm-Up

1-2

 eyes on teacher

I am a doer of math.

What is something you are better at now than you were when you started Kindergarten?

Activity

1

Tool Time

3



$1 + 1$

$2 + 1$

$3 + 1$



$3 + 3$

$3 + 1$

$4 + 1$

Directions:

3 Circle the expression that has the same value as the number.

Tool Time (continued)

3

$2 + 1$

$1 + 1$

$2 + 2$



$2 + 1$

$2 + 2$

$2 + 3$



$3 + 3$

$1 + 3$

$3 + 2$



$1 + 2$

$1 + 4$

$3 + 1$



$1 + 1$

$1 + 2$

$2 + 2$



$1 + 4$

$1 + 3$

$1 + 1$

4

Discuss



I know they have the same value because _____.

Directions:

3 Circle the expression that has the same value as the number.

4 Explain how you know the expression has the same value as the number.

Paint Party

5

1

2

3

4

5

$4 + 1 = \underline{\quad}$

$4 - 1 = \underline{\quad}$

$5 - 2 = \underline{\quad}$

$3 + 2 = \underline{\quad}$

$3 - 2 = \underline{\quad}$

$2 + 2 = \underline{\quad}$

$5 - 1 = \underline{\quad}$

$1 + 2 = \underline{\quad}$

Directions:**5**

Use the number bank to write the value of each expression.

Paint Party (continued)

5

$$4 - 2 = \underline{\quad}$$

$$5 - 3 = \underline{\quad}$$

$$2 - 1 = \underline{\quad}$$

$$3 + 1 = \underline{\quad}$$

6Discuss 

- They are the same because _____.
- They are different because _____.

7Discuss 

The parts and totals are connected because _____.

Directions:

- 5** Use the number bank to write the value of each expression.
- 6** Compare the 2 equations.
- 7** Explain how the parts and totals in the equations are connected.

Summary 7.09

Different expressions can have the same value.



$5 - 2$

$2 + 1$

$4 - 1$

$3 + 0$

Practice 7.09

You'll play this Center.



Find the Pair

Stage 1

Let's find pairs that make 5.

1

$$5 = 0 + \underline{\quad}$$

$$5 = 1 + \underline{\quad}$$

$$5 = 2 + \underline{\quad}$$

$$5 = 3 + \underline{\quad}$$

$$5 = 4 + \underline{\quad}$$

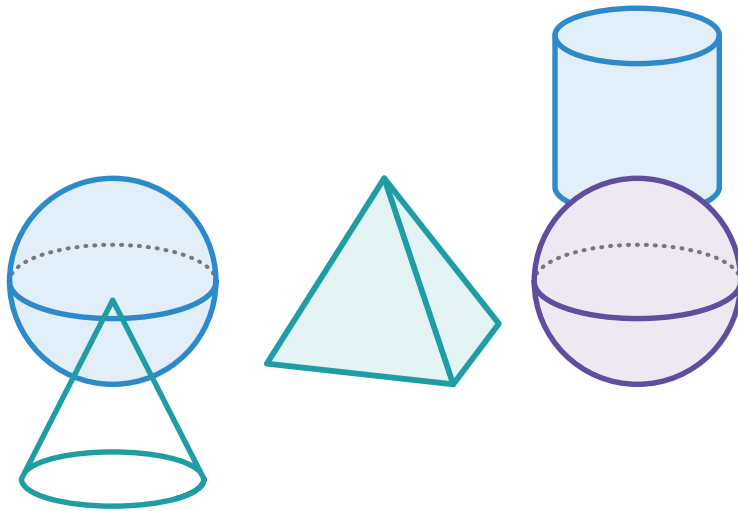
$$5 = 5 + \underline{\quad}$$

Directions:

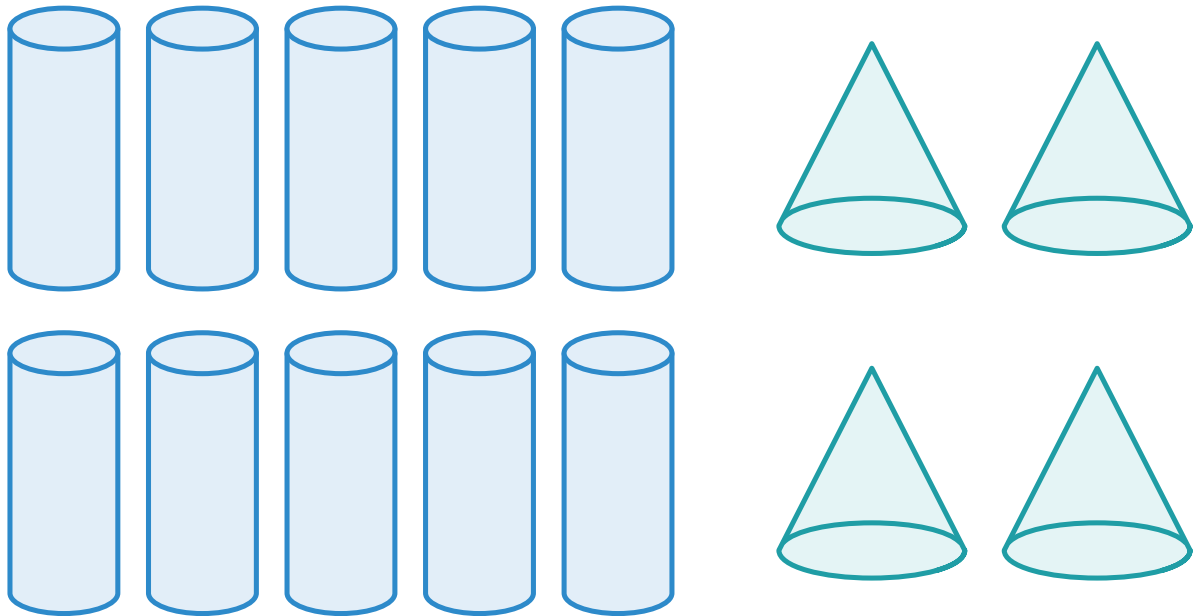
1. Find the number that makes each equation true.

Spiral Review

2



3



$$\begin{array}{c}
 \text{---} \\
 \text{---} \\
 \text{---}
 \end{array}
 +
 \begin{array}{c}
 \text{---} \\
 \text{---} \\
 \text{---}
 \end{array}
 =
 \begin{array}{c}
 \text{---} \\
 \text{---} \\
 \text{---}
 \end{array}$$

Directions:

2. Circle the shape that is *between* the spheres. Put an X on the shape that is *behind* a sphere. Color the shape that is *in front* of a sphere.
3. Write an equation that shows the number of cylinders, the number of cones, and the total number of solid shapes.

Name _____

How Many? Making Shapes From Parts Shapes in the World

 K.CC.5, K.G.4, K.G.6, SMP.1, SMP.5, SMP.6


Tall Towers

Let's build and count solid shapes.



Warm-Up



 eyes on teacher



I am a doer of math.

River used math to solve problems. When have you used math to solve a problem?

Activity

1

Building Towers

Hands-On 

1 Discuss 

- I put a _____ in my tower because _____.
- I did not put a _____ in my tower because _____.

Directions: Use solid shapes to build a tall tower. Explain to your group which shapes you used in your tower and why.

Counting Shapes

Hands-On 

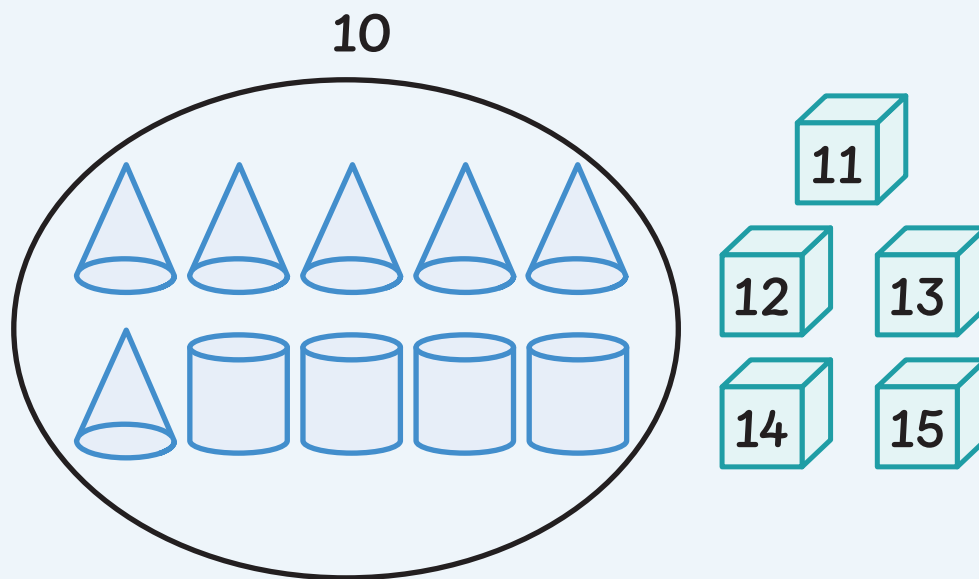
2 Discuss 

- There are _____ shapes.
- I know this because I _____.

Directions: Figure out how many solid shapes are in your tower. Explain how you arranged and counted your shapes with your group.

Summary 7.10

You can group objects together in a way that helps you count them.



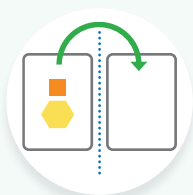
Practice 7.10

Choose from these Centers.



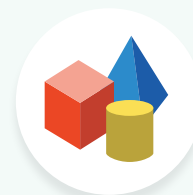
Find the Pair

Stage 1



Match Mine

Stage 2



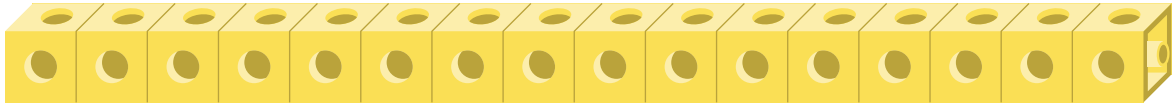
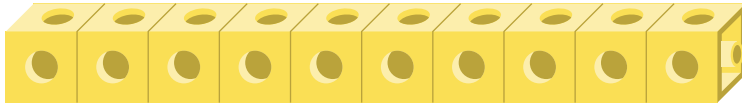
Solid Shapes

Stage 3

Practice 7.10

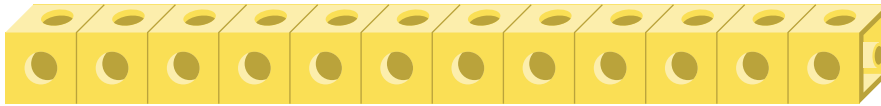
Name _____

1



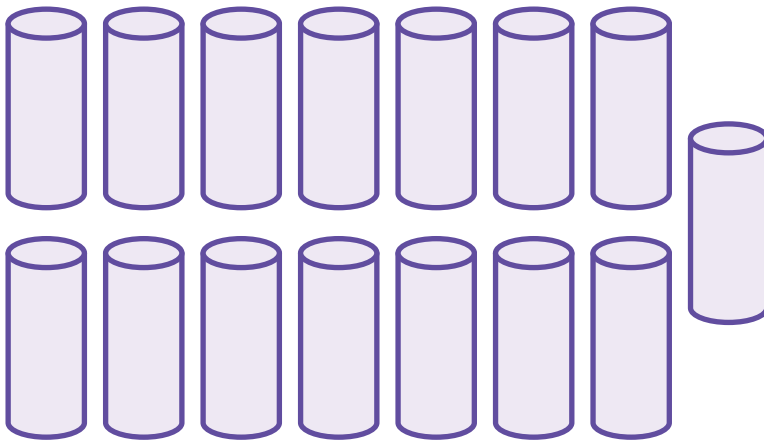
16

2



12

3



Directions:

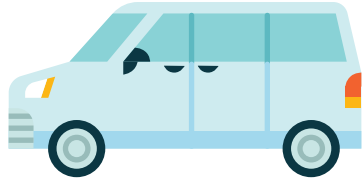
1–2. Circle the tower that has the same amount of shapes as the number.

3. Write the number that tells how many.

Spiral Review

4

 Draw



5

10 11 12 _____


_____ 17 _____ 20

Directions:

- 4. Draw 2 shapes you see in the picture.
- 5. Write each missing number.

Name _____

How Many? Bigger or Equal Making Shapes From Parts

 K.CC.6, K.CC.1, K.CC.5, K.G.4, K.G.5, K.G.6, SMP.2, SMP.7

Comparing Groups of Shapes

Let's figure out whether there are *more*, *fewer*, or the *same* number of shapes.



We are a math community.

What have you learned from working with partners in math class this year?

Warm-Up



eyes on teacher

Activity

1

Designing a Birdhouse

Hands-On 

1  Show your thinking.





Directions: Use blue rhombuses and orange squares to fill the birdhouse. Figure out and write a number to show how many of each shape you used. Tell your partner about your shapes using the words *more*, *fewer*, and *same*.

Counting Faces

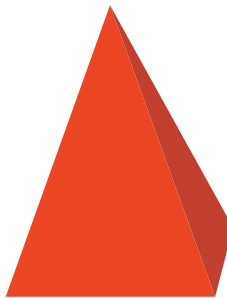
Hands-On 

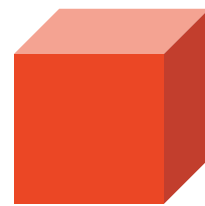
2



Show your thinking.







Directions: Count the faces of your solid shapes. Figure out and write a number to show how many faces each shape has. Tell your partner how you counted the faces.

Summary 7.11

You can compare the number of shapes in 2 groups using the words *more*, *fewer*, and *same*.



There are more rhombuses than squares.
There are fewer squares than rhombuses.

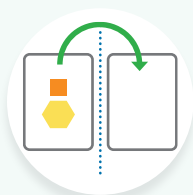
Practice 7.11

Choose from these Centers.



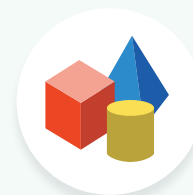
Find the Pair

Stage 1



Match Mine

Stage 2



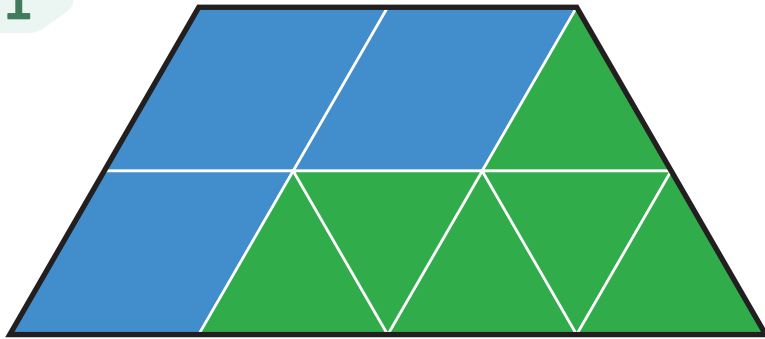
Solid Shapes

Stage 3

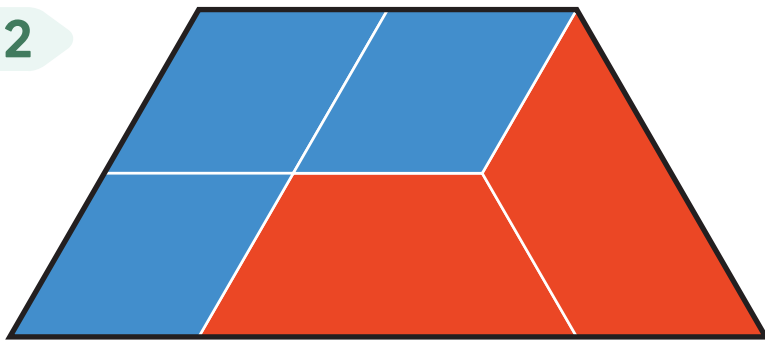
Practice 7.11

Name _____

1

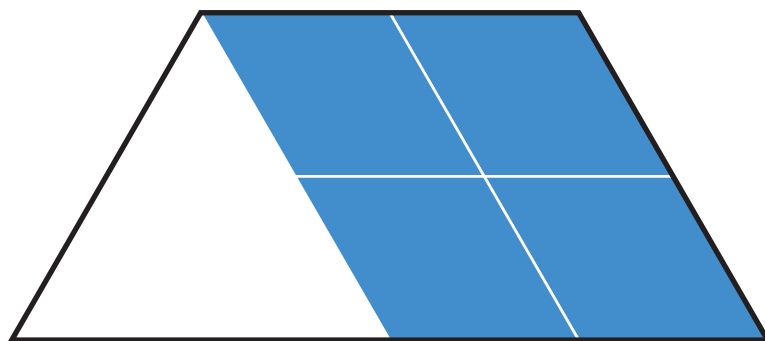


2



3

Draw



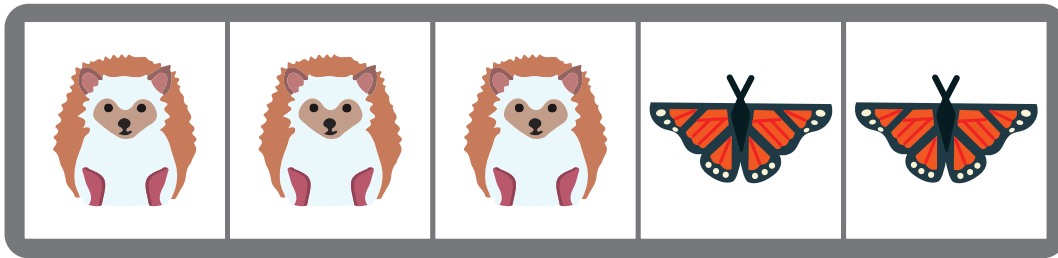
4

Directions:

1. Write the number that tells how many. Circle the shape that has *more*.
2. Write the number that tells how many. Circle the shape that has *fewer*.
3. Draw to fill in the rest of the shape with the same amount of triangles. Write the number that tells how many.

Spiral Review

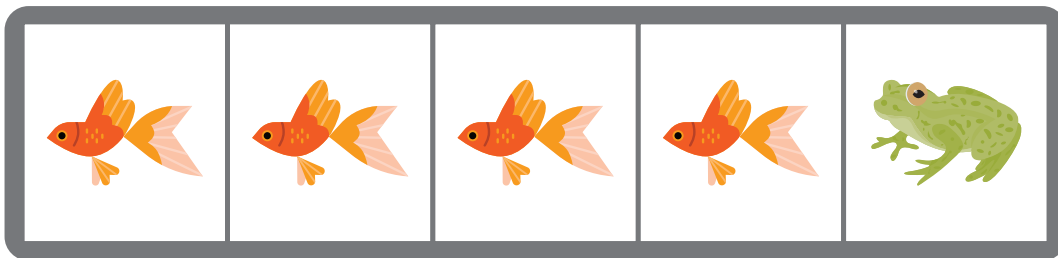
4



$5 = 3 + 2$

$5 = 1 + 4$

5



$5 = 4 + 1$

$5 = 0 + 5$

6



7




Directions:

4–5. Circle the equation that matches the 5-frame.

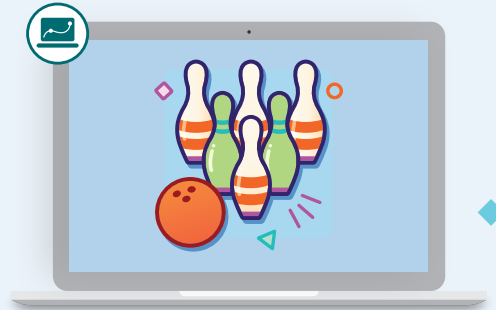
6–7. Circle the number card that shows *less*.

Name _____

Being Flexible Within 10 Model With Numbers  K.OA.4, K.OA.3, SMP.7, SMP.8


Let's Keep the Ball Bowling

Let's show what we know about making 10.



Warm-Up

1

 eyes on teacher

We are a math community.
River's neighbors were grateful for River's help. What are you grateful for in math class?

Activity

1

10 Pins Make a Strike

2

0

1

2

3

4

5

6

7

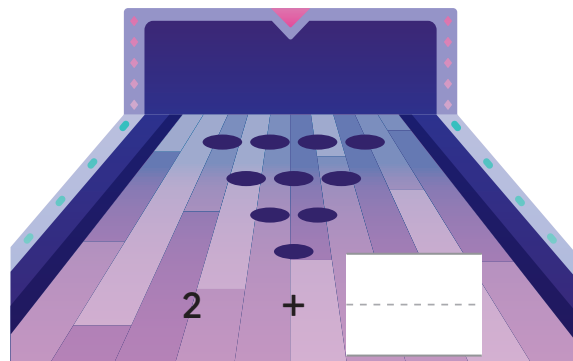
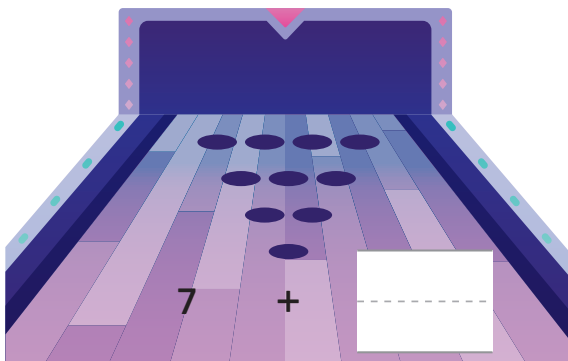
8

9

10



Show your thinking.



Directions:

2 Fill in the expression to make 10.

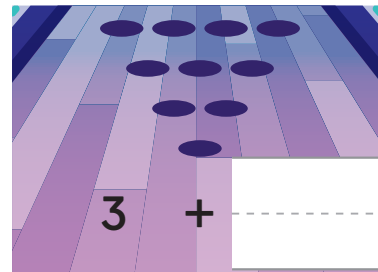
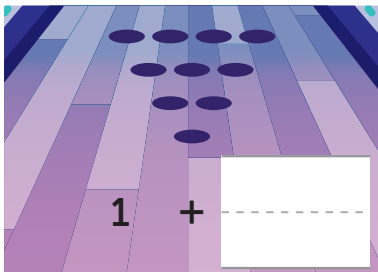
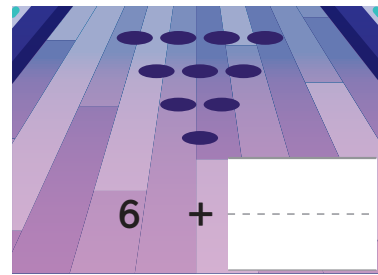
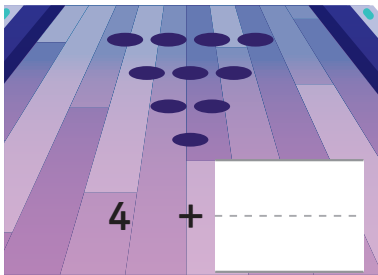
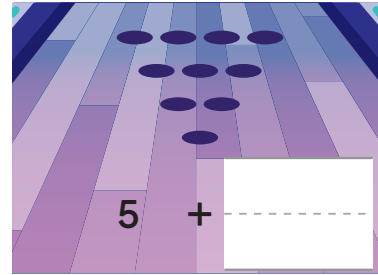
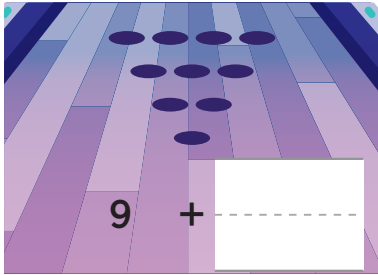
3 Tell your partner how you can fill in the expression to make 10 and explain how you know.

10 Pins Make a Strike (continued)

2



Show your thinking.



3

Discuss

- I know _____ and 6 _____ make 10.
- I know because _____.

Directions:

2 Fill in the expression to make 10.

3 Tell your partner how you can fill in the expression to make 10 and explain how you know.

So Many Strikes

4

0

1

2

3

4

5

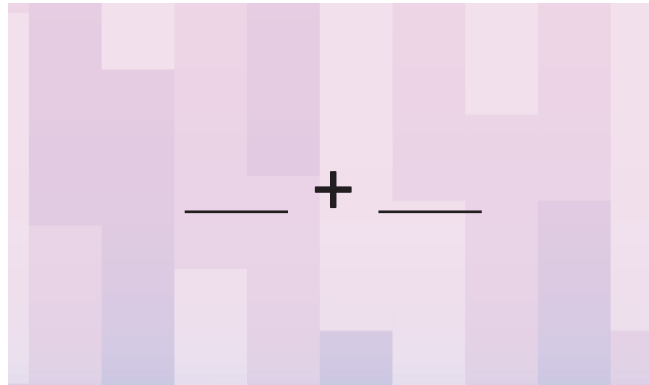
6

7

8

9

10



Show your thinking.

Directions:

4 Make 10 in as many ways as you can.

5 Tell your partner what you notice. Then tell your partner which ways to make 10 are missing, if any, and explain how you know.

So Many Strikes (continued)

4



Show your thinking.

5

Discuss 

• I notice _____.

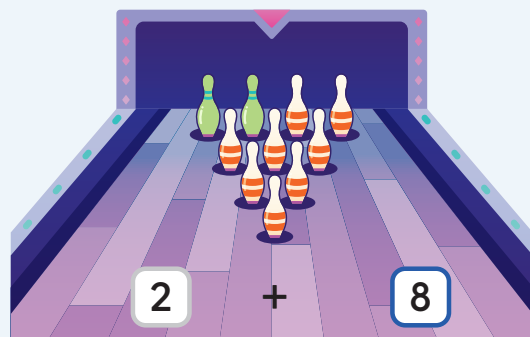
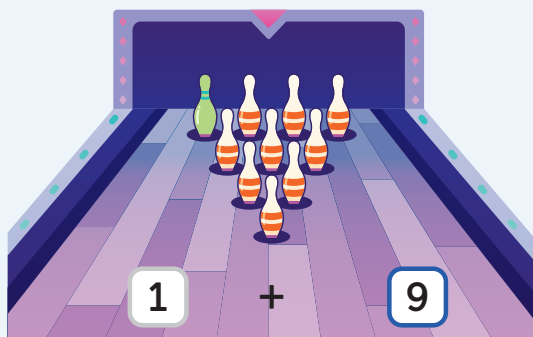
Directions:

4 Make 10 in as many ways as you can.

5 Tell your partner what you notice. Then tell your partner which ways to make 10 are missing, if any, and explain how you know.

Summary 7.12

There are different ways to make and show 10.



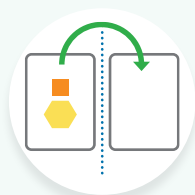
Practice 7.12

Choose from these Centers.



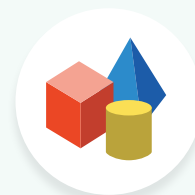
Find the Pair

Stage 1



Match Mine

Stage 2



Solid Shapes

Stage 3

1 Clare used 10 pattern blocks to make a puzzle.
She used trapezoids and triangles.

How many trapezoids did Clare use?

How many triangles did Clare use?

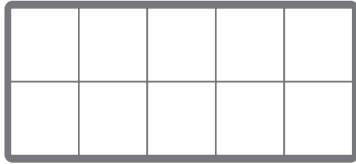
 Show your thinking.

Directions:

1. Solve the story problem in more than 1 way. Show your thinking using objects, drawings, numbers, or words. Then write an equation to show your thinking.

 Draw

2



3

$$18 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

4



5



Directions:


2. Use the 10-frame to draw the parts that make the number.
3. Find the numbers that make the equation true.
- 4–5. Circle the number card that shows *more*.

Name _____

Being Flexible Within 10

Making Shapes from Parts

Shapes in the World

 K.OA.1, K.G.6, SMP.2, SMP.7

Shapes and Equations

Let's use equations to show the 2 parts and the total number of shapes.



Warm-Up



eyes on teacher

I am a doer of math.

What have you enjoyed doing in math class this year?

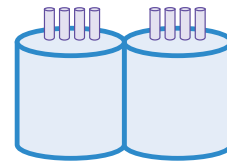
Activity

1

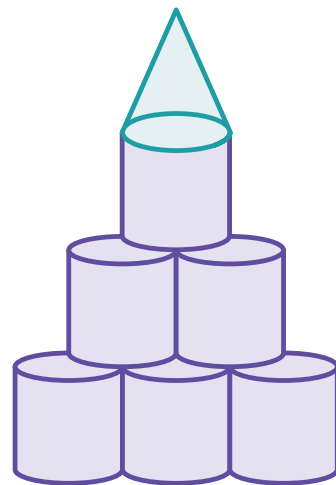
Matching Equations With Objects

1

$$6 + 1 = 7$$



$$10 = 2 + 8$$

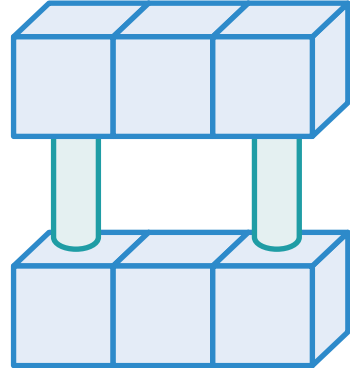


Directions: Draw lines to match each object with an equation. Explain your matches to your partner.

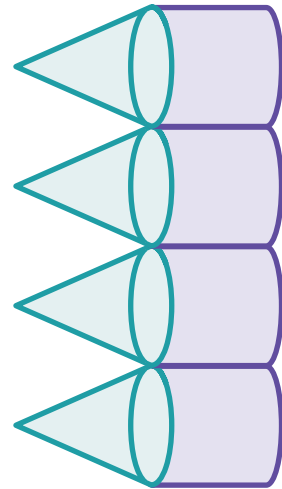
Matching Equations With Objects (continued)

1

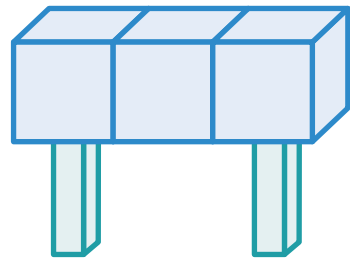
$$8 = 4 + 4$$



$$2 + 3 = 5$$



$$8 = 6 + 2$$



Directions: Draw lines to match each object with an equation. Explain your matches to your partner.

Making a Shape to Match

Hands-On 

$$7 = 2 + 5$$

$$10 + 0 = 10$$

$$5 + 4 = 9$$

$$8 = 2 + 6$$

$$3 + 3 = 6$$

Directions: Choose an equation and put shapes together to match the equation. Then draw or trace your shape and write the matching equation. Explain to your partner how your shape and equation match.

Making a Shape to Match (continued)

2



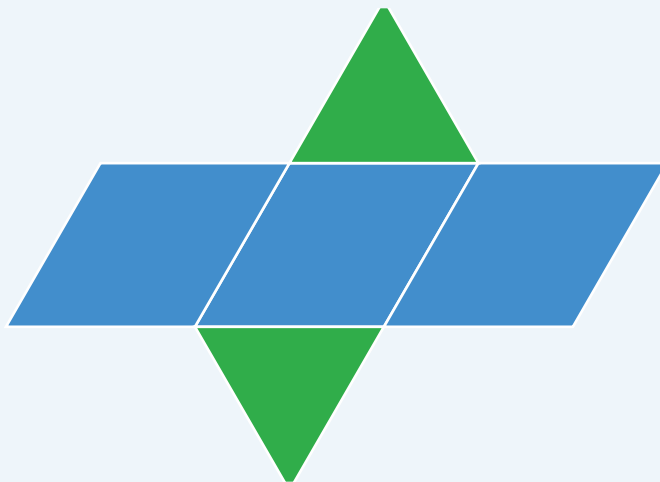
Draw

A large, empty rounded rectangle with a light green border, intended for drawing a shape that matches a given equation.

Directions: Choose an equation and put shapes together to match the equation. Then draw or trace your shape and write the matching equation. Explain to your partner how your shape and equation match.

Summary 7.13

Equations about adding can look different.



$$2 + 3 = 5$$

$$3 + 2 = 5$$

$$5 = 2 + 3$$

$$5 = 3 + 2$$

Practice 7.13

You'll play this Center.



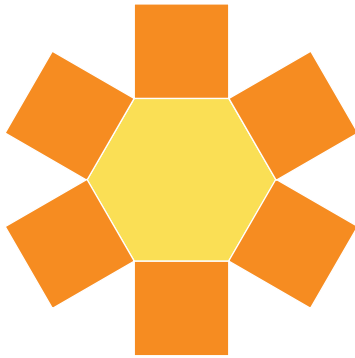
Pattern Blocks Stage 7

Let's count out pattern blocks and use them to build a shape.

Practice 7.13

Name _____

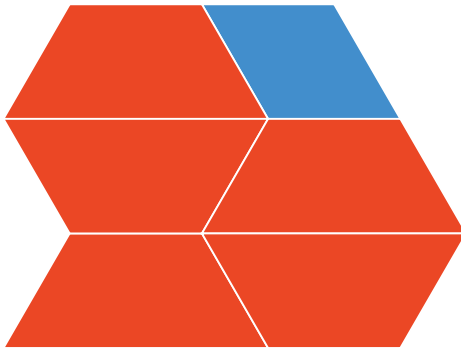
1



$$6 = 5 + 1$$

$$1 + 6 = 7$$

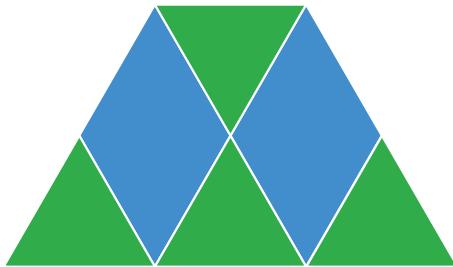
2



$$5 = 1 + 4$$

$$6 = 5 + 1$$

3



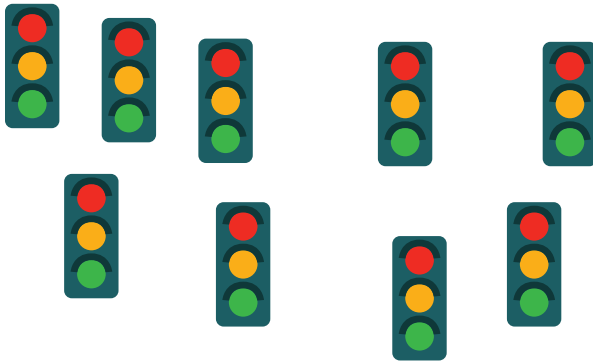
	=			

Directions:

- 1–2. Circle the equation that matches the picture.
3. Write an equation to match the picture.

Spiral Review

4



5



6



+

7



Directions:

4–5. Write the number that tells how many.

6. Fill in the expression to show the 2 parts that make 8.

7. Show another way to break the number 8 into 2 parts.

Showing and Solving Shape Stories

Let's solve story problems and match them with equations.



Warm-Up



eyes on teacher

I am a doer of math.
In what ways have you grown as a mathematician this year?

Activity

1

Which Equation Matches?

- 1 Clare made a shape with 7 pattern blocks. Her brother took 3 of the pattern blocks. How many pattern blocks does Clare have now?



Show your thinking.

$$7 = 4 + 3$$

$$7 - 3 = 4$$

$$7 + 3 = 10$$

Directions:

- 1–2. Solve the story problem. Show your thinking using drawings, numbers, or words. Circle the equation that matches the story.

Which Equation Matches? (continued)

- 2 Han made a shape with 7 pattern blocks.
Jada put 3 more pattern blocks on the shape.
How many pattern blocks are in Han and Jada's shape?

 Show your thinking.

$$7 = 4 + 3$$

$$7 - 3 = 4$$

$$7 + 3 = 10$$

Directions:

- 1–2. Solve the story problem. Show your thinking using drawings, numbers, or words.
Circle the equation that matches the story.

Solving Story Problems

- 3 Diego put together 4 solid shapes to make an object.

Then he put 4 more solid shapes on the object.

How many solid shapes are in Diego's object now?



Show your thinking.

equation: $\begin{array}{c} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array} = \begin{array}{c} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array} + \begin{array}{c} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array}$

Directions:

- 3–4. Solve the story problem. Show your thinking using drawings, numbers, or words. Use solid shapes if they are helpful. Fill in the equation to show what happened in the story problem.

Solving Story Problems (continued)

- 4 Priya used 9 solid shapes to make a train. Then she took 3 of the solid shapes off the train and put them back in the bucket. How many solid shapes are in Priya's train now?

 Show your thinking.

equation: $\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

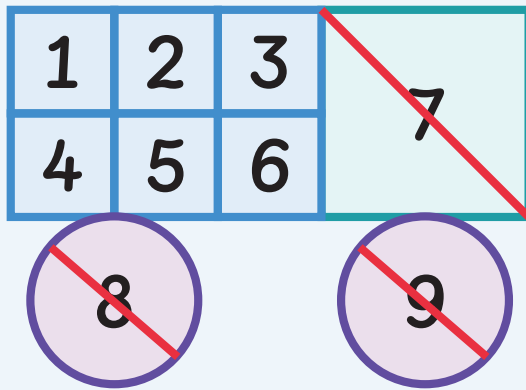
Directions:

- 3–4. Solve the story problem. Show your thinking using drawings, numbers, or words. Use solid shapes if they are helpful. Fill in the equation to show what happened in the story problem.

Summary 7.14

We can show story problems about adding and subtracting with drawings and equations.

Jada built a train with 9 solid shapes.
She put 3 solid shapes away.
How many solid shapes are left?



$$9 - 3 = 6$$

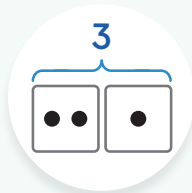
Practice 7.14

Choose from these Centers.



Build Shapes

Stage 3



**Make or Break
Apart Numbers**

Stage 2



Pattern Blocks

Stage 7

- 1 Clare put 8 pattern blocks together to make a shape.

Then 3 of the pattern blocks fell on the floor.

How many pattern blocks does Clare have now?

 Show your thinking.

2

$8 - 3 = 5$

$8 - 5 = 3$

$5 + 3 = 8$

Directions:

1. Solve the story problem. Show your thinking using drawings, numbers, or words. Write your answer on the line.
2. Circle the equation that matches the story problem.

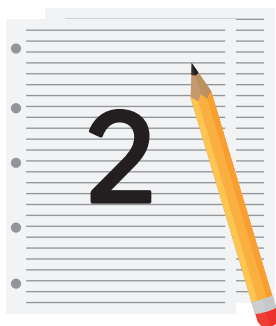
Name _____

3

10

20

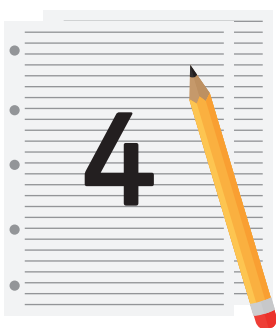
4



5 =

_____ + _____

5



5 =


_____ + _____

Directions:

3. Fill in each missing number.

4–5. Diego and Priya are writing books at school. They each need to write 5 pages to complete their book. Write the number that shows how many more are needed to make 5. Then fill in the equation to show the 2 parts that make 5.

Name _____

Being Flexible Within 10 Model With Numbers  K.OA.2, K.OA.1, SMP.2, SMP.4, SMP.5

Subtracting Shapes

Let's solve and create story problems about subtracting shapes.



Warm-Up



eyes on teacher



I am a doer of math.

What is a math idea that you are excited to learn more about next year?

Activity

1

River's Lost Materials

1

River put 9 blocks in his wagon.

On his walk, 6 blocks fell out of his wagon.

How many blocks were left in his wagon?



Show your thinking.

equation:

_____	_____	_____
-----	-----	-----
_____	_____	_____

Directions:

1–2. Solve the story problem. Show your thinking using drawings, numbers, or words. Then fill in the equation to show your thinking.

River's Lost Materials (continued)

2 River built a tower using 7 blocks.

He took 4 blocks off the tower to give to a friend.

How many blocks were left on his tower?

 Show your thinking.

equation: $\begin{array}{r} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array} - \begin{array}{r} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array} = \begin{array}{r} \underline{\hspace{2cm}} \\ \text{---} \\ \underline{\hspace{2cm}} \end{array}$

Directions:

1–2. Solve the story problem. Show your thinking using drawings, numbers, or words. Then fill in the equation to show your thinking.

Stories About Subtracting

3



Show your thinking.

4

$$\begin{array}{r}
 \underline{\hspace{2cm}} \\
 \text{-----} \\
 \underline{\hspace{2cm}}
 \end{array}
 -
 \begin{array}{r}
 \underline{\hspace{2cm}} \\
 \text{-----} \\
 \underline{\hspace{2cm}}
 \end{array}
 =
 \begin{array}{r}
 \underline{\hspace{2cm}} \\
 \text{-----} \\
 \underline{\hspace{2cm}}
 \end{array}$$

equation:

$$\underline{\hspace{2cm}} - \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

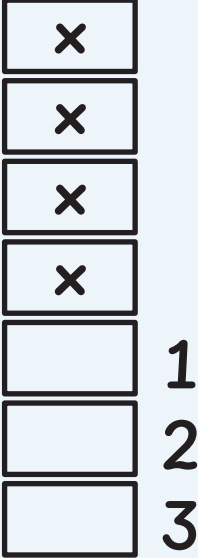
Directions:

Solve your partner's story problem. Show your thinking using drawings, numbers, or words. Fill in the equation to show your thinking.

Summary 7.15

Subtraction story problems can be shown and solved using drawings, numbers, words, or equations.

take away



$7 - 4 = 3$

left

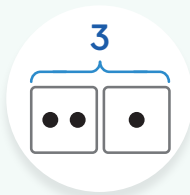
Practice 7.15

Choose from these Centers.



Build Shapes

Stage 3



**Make or Break
Apart Numbers**

Stage 2



Pattern Blocks

Stage 7

Practice 7.15

Name _____

1

$9 - 4 = 5$

$9 - 5 = 4$

$5 + 4 = 9$



Show your thinking.

A large, empty rectangular box with rounded corners and a light green border, intended for students to write their work.

Directions:

1. Create a story problem about River that matches 1 of the equations. Circle the equation you chose and solve your story problem.

Spiral Review

2

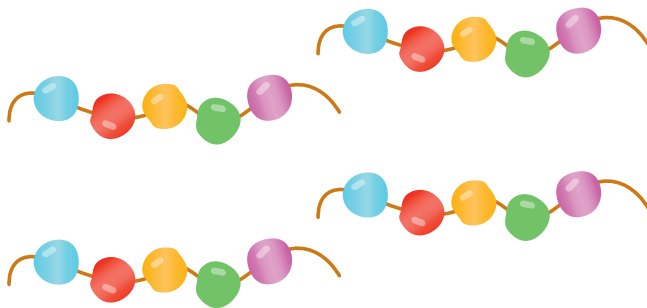


$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$



$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array} + \begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

3



$$\begin{array}{c} \text{_____} \\ \text{-----} \\ \text{_____} \end{array}$$

Directions:


2. Fill in the expression to show the 2 parts in the picture. Then show another way to make 8.
3. Write the number that tells how many.

Name _____

Model With Numbers

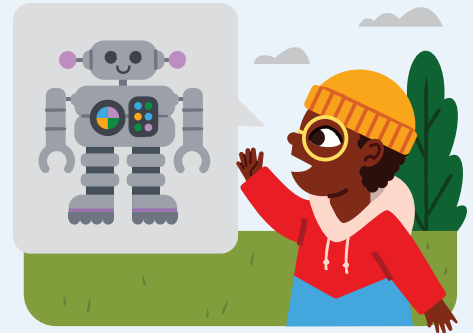
Shapes in the World

Making Shapes From Parts

 K.OA.2, K.G.5, K.G.6, K.OA.1, SMP.2, SMP.4

Shape Robots

Let's use shapes to make a problem-solving robot.



Warm-Up



eyes on teacher



I am a doer of math.

What is your favorite thing you have learned about in math class this year?

Activity

1

Building a Shape Robot

Hands-On 

1

Discuss



My robot will help by _____.

I made my robot with _____.

Directions: Use solid shapes to build a robot that will solve a problem in our classroom. Describe the shapes you use to your partner.

Telling and Solving Story Problems

Choose 1 expression.

$5 + 3$

$9 + 1$

$4 + 5$

$9 - 3$

$8 - 6$

$7 - 3$

$4 + 3$

$7 + 2$

2



Show your thinking.

equation: _____

Directions: Choose 1 expression and create a story problem to match. Solve your partner's story problem. Show your thinking using drawings, numbers, or words. Write an equation to show your thinking.

Summary 7.16

You can think about the math you see in the world.

"The pole of the birdhouse looks like a cylinder."



"There were 5 birds on the birdhouse, then 2 went away."

"I see 5 birds."

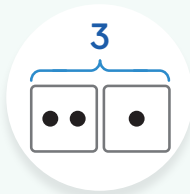
Practice 7.16

Choose from these Centers.



Build Shapes

Stage 3



Make or Break Apart Numbers

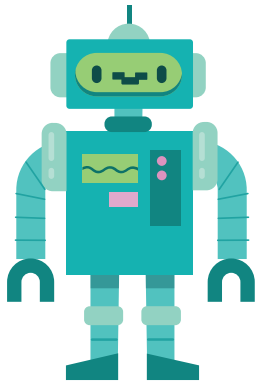
Stage 2



Pattern Blocks

Stage 7

1



 Show your thinking.

A large, empty rounded rectangular box for writing or drawing.

Directions:

1. Create a story problem about the picture. Solve your story problem using objects, drawings, numbers, or words.

Spiral Review

2

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$$6 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

--	--	--	--	--	--

$$6 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \\ \text{---} \end{array}$$

3

2

4

4

9

5

Directions:

2. Show 2 ways to make 6. Fill in the equations to show the parts.
 3–4. Circle the number card that shows *less*.



Notes:

Math at Work

Building new things can be fun and can help people.

Carpenters build structures that have solid shapes. They might first draw their plans using flat shapes.

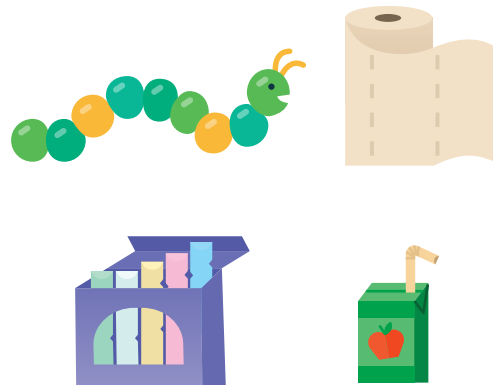


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Math at Home

 Draw

Math Mindset



Directions:

Math at Home: Draw a flat or solid shape that you see in your home or neighborhood. What shape did you draw?

Math Mindset: Look at these everyday objects. What shapes do you see?