Compose and Decompose Numbers to 10

Kindergarten : Unit 5

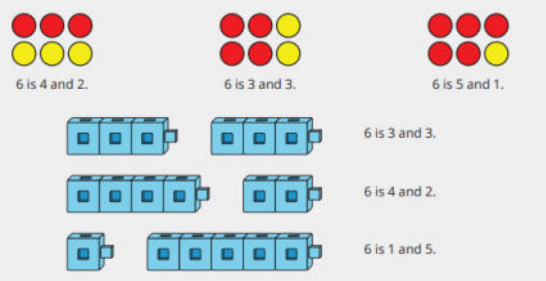
Standards addressed: K.CC.A, K.CC.B, K.CC.C, K.OA.A

Unit 5 Progression Overview

Compose and Decompose Numbers to 10

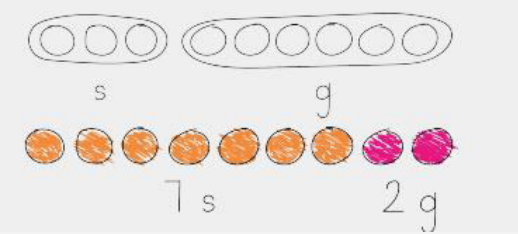
Section A
Lessons 1-6
K.CC.A., K.CC.B., K.OA.A.

- Compose and decompose numbers up to 9 in more than 1 way.
- Write expressions to represent decompositions.



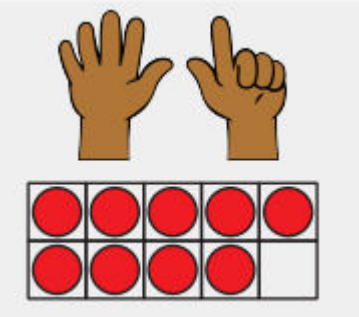
Section B
Lessons 7-11
K.CC.A, K.CC.C, K.CC., K.OA.A.

- Solve Put Together, Total Unknown, Put Together/Take Apart, Both Addends Unknown, and Add To/Take From, Result Unknown story problems



Section C
Lessons 12-17
K.CC.A, K.CC.B, K.CC.C., K.OA.A

- For any number from 1 to 9, find the number that makes 10 when added to the given number.



Unit 5 Quick Links

L1 L2 L3 L4 L5 L6

L7 L8 L9 L10 L11 L12

L13 L14 L15 L16 L17

1

Make 2 Parts

Let’s break numbers up into parts.

K.CC.A.3, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.5

Warm up

Notice and Wonder: 2 Pictures

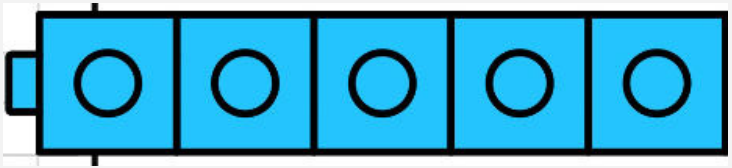
What do you notice?

What do you wonder?

Activity #1

Five Connecting Cubes

- You have 5 cubes. Put some of the cubes in your hands and some on your desk.
- Tell your partner how many cubes are in your hands. Show them the cubes.
- Tell your partner how many cubes are on your desk. Show them the cubes.
- Tell your partner how many cubes you have altogether.



Activity #2

Diego's and Lin's Connecting Cubes

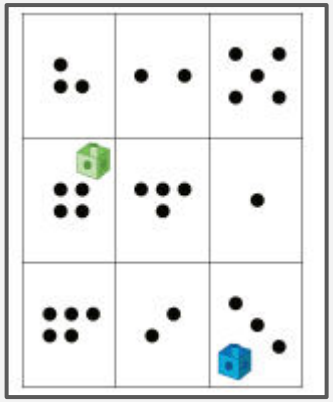
Diego and Lin also put some cubes in their hands and some on their desks. Diego has 3 in his hand and 1 on his desk. He says he has 4 cubes total. Lin has 2 in her hand and 2 on her desk. She also says she has 4 cubes total. Can they both have 4 cubes total?

Activity #3

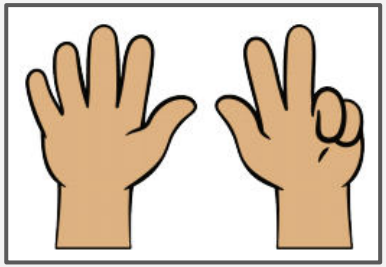
Centers: Choice Time

Find the Value of Expressions, Color the Total or Difference

Roll and Add, Addition Expressions

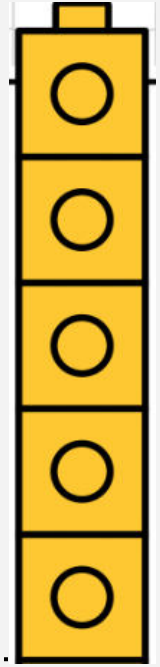


Math Fingers, Add 2 Hands

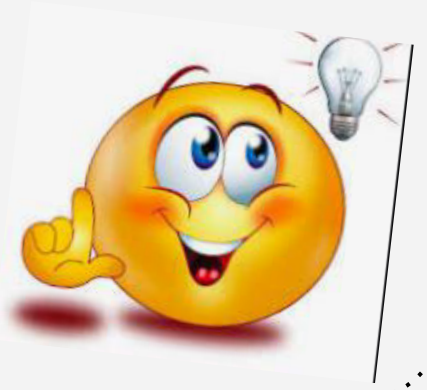


Lesson Synthesis

Today we learned that you can break numbers into two parts in different ways.



Tell your partner how you can break apart the 5 cubes into two parts.



2

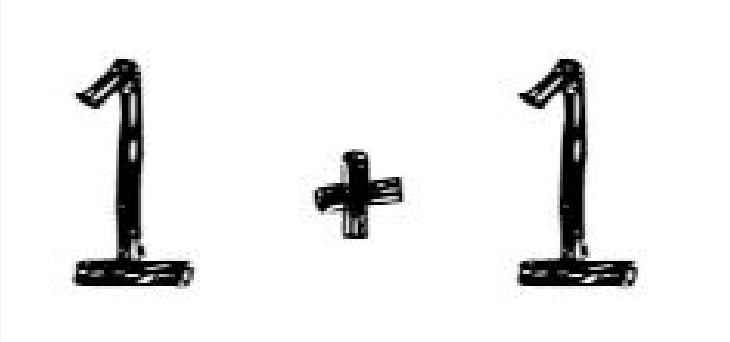
Break Apart Numbers Within 5

Let’s break apart numbers and record the parts with an expression.

K.CC.A.3, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.5

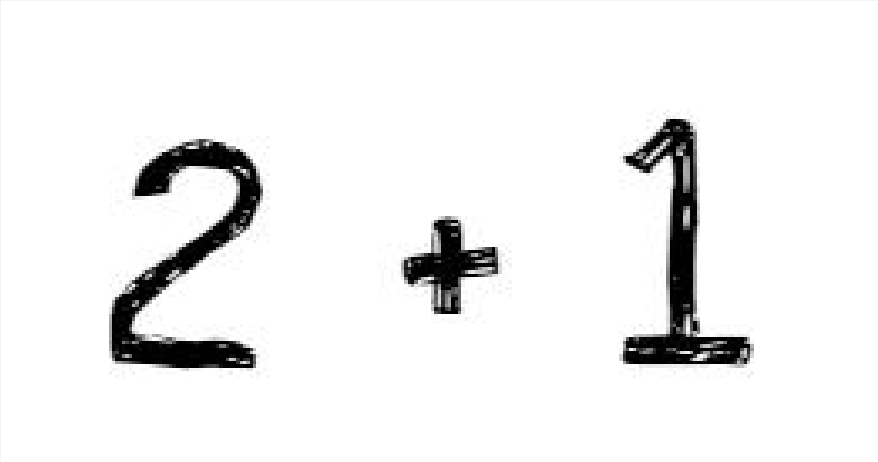
Warm up

Number Talk + 1



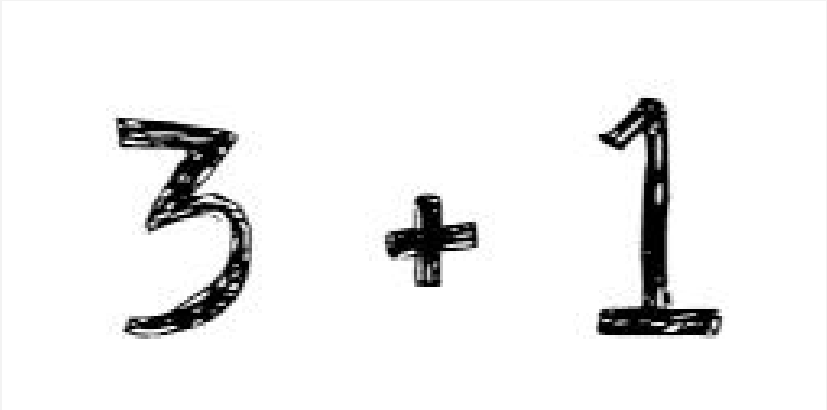
Warm up

Number Talk + 1



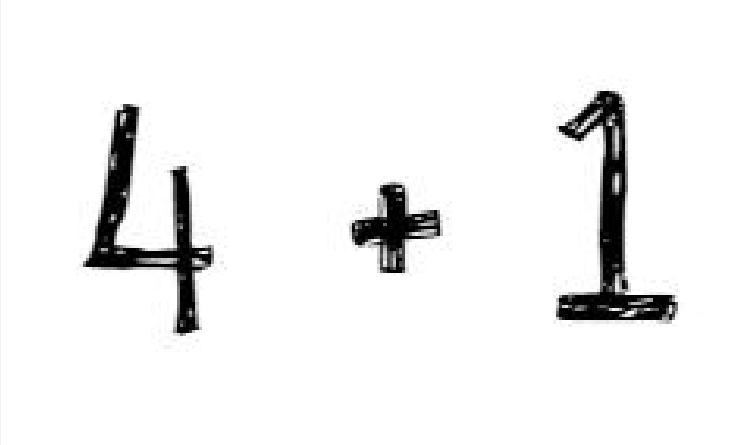
Warm up

Number Talk + 1



Warm up

Number Talk + 1

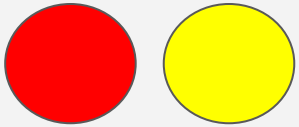


Activity #1

Break Apart 5 With Counters

Today we are going to do an activity that is like the center activity Shake and Spill.

- We will play with 5 counters.
- Each time we spill out the counters, we will draw a picture of the counters.
- Then draw a line to the expression that represents the 2 parts.
- The parts are the red counters and the yellow counters.



Activity #1

Break Apart 5 With Counters

Drawing:
Drawing:
Drawing:
Drawing:
Drawing:
Drawing:

0 + 5

1 + 4

2 + 3

3 + 2

4 + 1

5 + 0

Activity #2

Introduce Shake and Spill, Cover

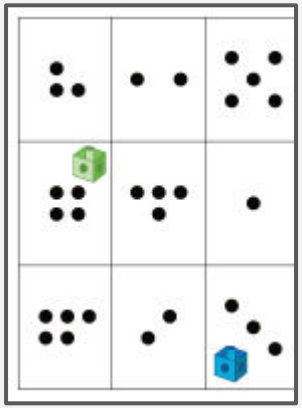
Now we are going to learn another way to play Shake and Spill. This game is called Shake and Spill, Cover. Let's play a round together.

total counters	expression
	
5	3 + 2

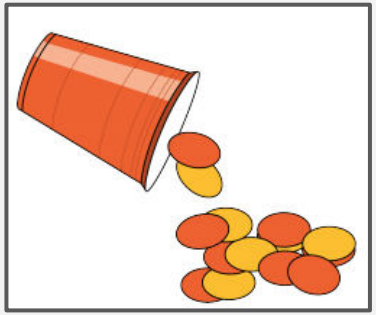
Activity #3

Centers: Choice Time

Roll and Add, Addition Expressions

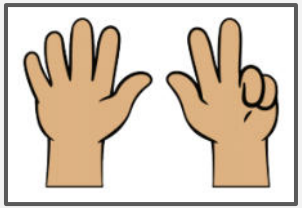


Shake and Spill, Cover



Find the Value of Expressions, Color the Total or Difference

Math Fingers, Add 2 Hands



Lesson Synthesis

Today we learned that expressions can tell us the 2 parts that make up a number.

$4 + 1$

What are the 2 parts in this expression? Work with your partner to represent the parts with cubes.

3

Represent Parts of Totals with Expressions

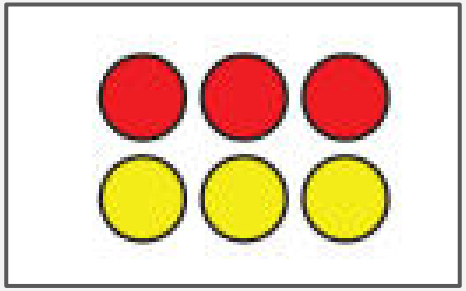
Let’s break apart numbers and show the 2 parts with an expression.

K.CC.A.1, K.CC.A.3, K.CC.B.5, K.G.A.1, K.G.B.6

Warm up

How Many Do You See? Counters

How many do you see?

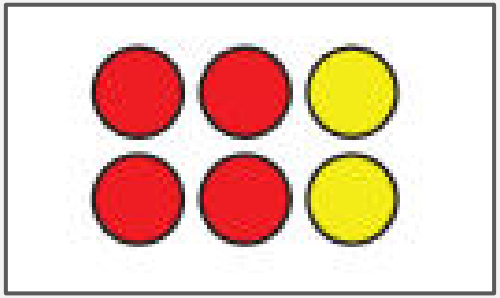


How do you see them?

Warm up

How Many Do You See? Counters

How many do you see?

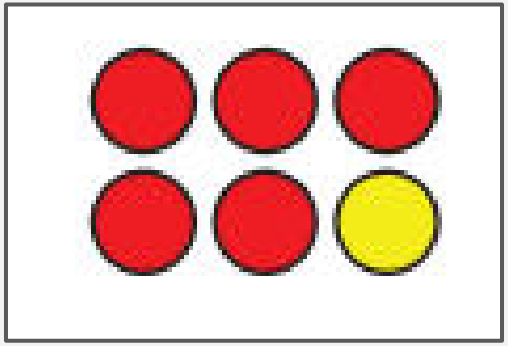


How do you see them?

Warm up

How Many Do You See? Counters

How many do you see?



How do you see them?

Represent Expressions

Activity #1

Andre and Lin played Shake and Spill with 7 counters. They wrote these expressions to show what happened when they spilled the counters.

- Draw a group of counters that could go with each expression

expression	drawing
$0 + 7$	
$2 + 5$	
$4 + 3$	
$6 + 1$	

Activity #2

Write Expressions

We are going to play Shake and Spill. This time we will write an expression to represent the red and yellow counters in each round. Let's play 1 round together.

We will all start with 8 counters.

- How many counters are red? How many are yellow? What expression can we write to represent the red and yellow parts?

Round 1:

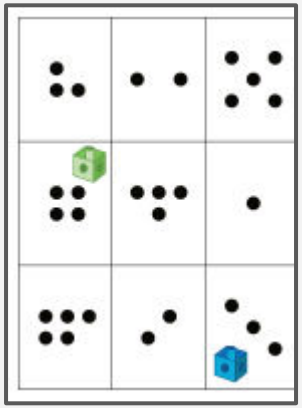
Expression: _____

Now you will work with your partner with 8 cubes. Take turns shaking and spilling the counters

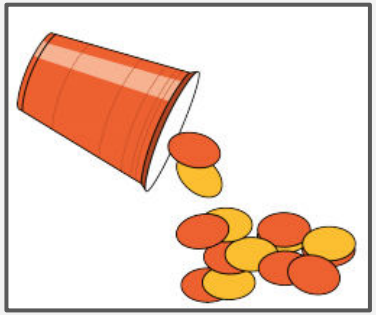
Activity #3

Centers: Choice Time

Roll and Add, Addition Expressions

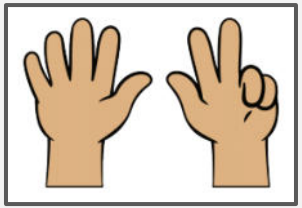


Shake and Spill, Cover



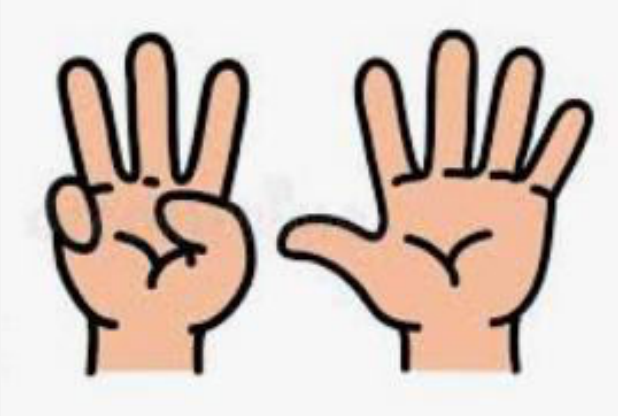
Find the Value of Expressions, Color the Total or Difference

Math Fingers, Add 2 Hands



Lesson Synthesis

Today we worked with expressions that represent different ways to break numbers into parts.



Tell your partner what expression you would write to show how you made 8 with fingers.

4

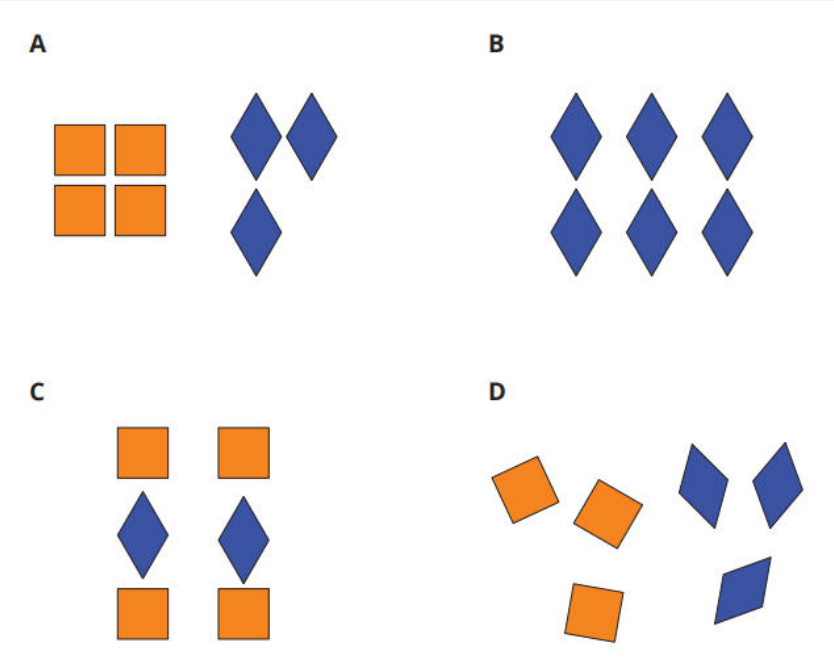
Break Apart Pattern Block Designs

Let’s make and break apart pattern block designs.

K.CC.A.3, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Which One Doesn't Belong: Pattern Block Designs



Create Pattern Blocks Designs

Activity #1

Create a design with 7 pattern blocks.

- Use only green triangles and orange squares.
- Draw a picture of your design and write an expression to represent the parts inside your 7 blocks.

Activity #2

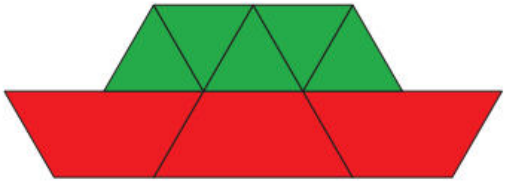
Han's Pattern Block Design

Here are some pattern block designs made with 8 pattern blocks.

- Write an expression to represent the 2 parts in each design.

Han used 8 pattern blocks.

1.



Expression: _____

Could this be Han's design? Yes No

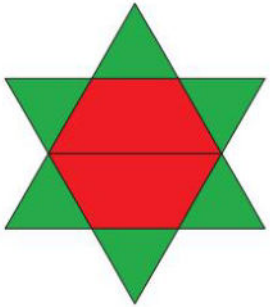
Activity #2

Han's Pattern Block Design

Here are some pattern block designs made with 8 pattern blocks.

- Write an expression to represent the 2 parts in each design.

2.



Expression: _____

Could this be Han's design? Yes No

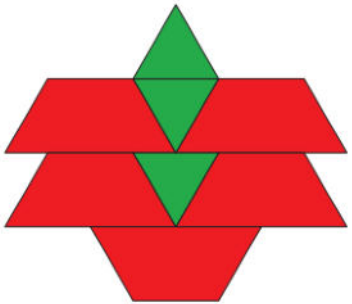
Activity #2

Han's Pattern Block Design

Here are some pattern block designs made with 8 pattern blocks.

- Write an expression to represent the 2 parts in each design.

3.



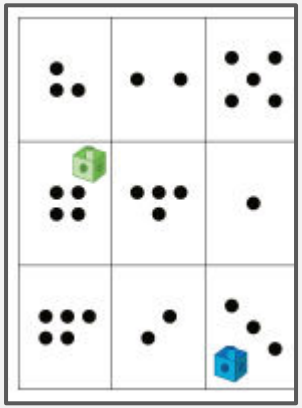
Expression: _____

Could this be Han's design? Yes No

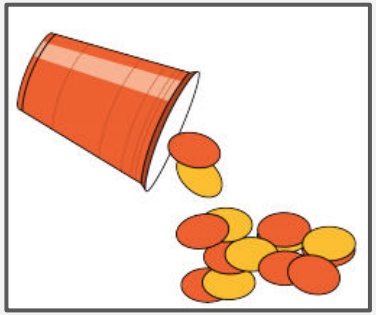
Activity #3

Centers: Choice Time

Roll and Add, Addition Expressions

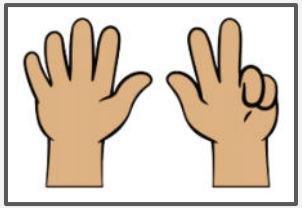


Shake and Spill, Cover



Find the Value of Expressions, Color the Total or Difference

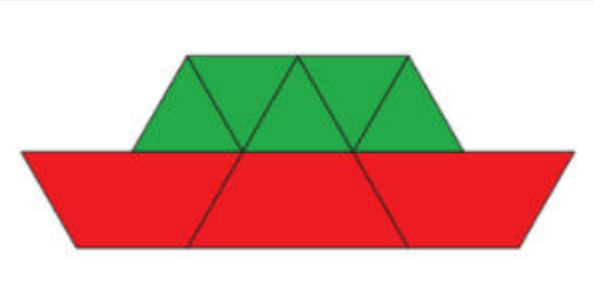
Math Fingers, Add 2 Hands



Lesson Synthesis

Today we wrote expressions to represent the 2 parts in pattern block designs.

Elena wrote 5 + 3 to represent the parts in this design.



Is there another expression we could write?

5

Snap the Cubes

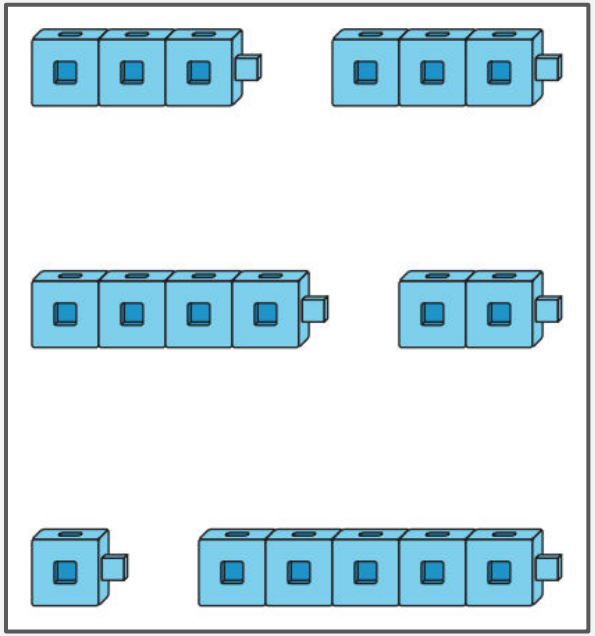
Let’s snap towers into 2 parts, record the parts, and look for patterns.

K.CC.A.3, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Notice and Wonder: Connecting Cube Towers

What do you notice?



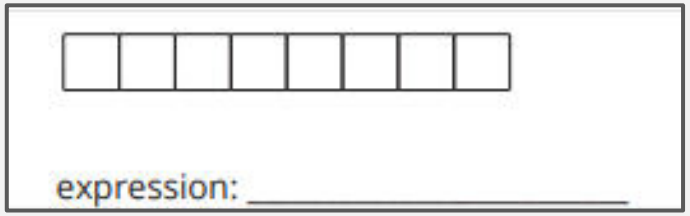
What do you wonder?

Introduce Snap the Cubes, Show 2 Parts

Activity #1

Today we're going to learn a game called Snap the Cubes.
Let's play 1 round together

- Start with a tower of 8 cubes. One partner breaks the cube into 2 parts.
- The other partner describes what happened to the tower. Tell your partner what happened to my tower.
- Both partners record the two parts with a drawing and an expression.
- Then put your tower back together, and play again. Take turns snapping the tower.

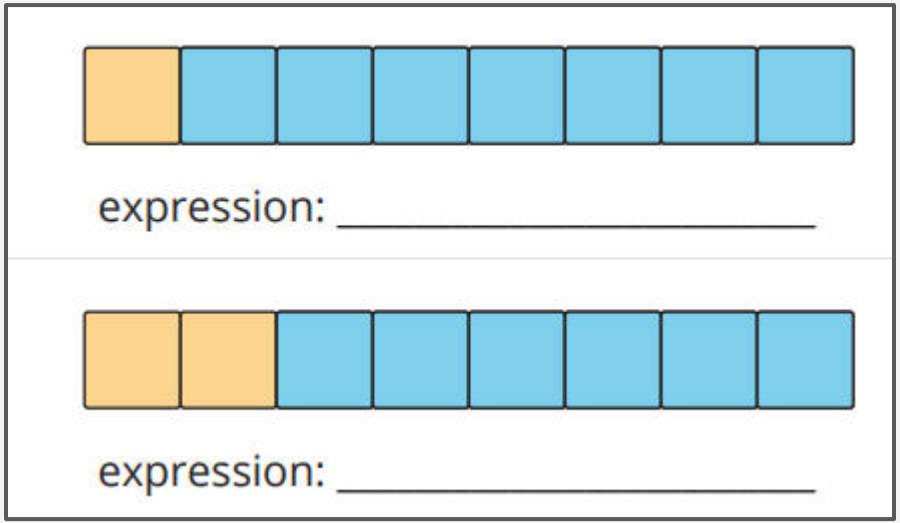


Activity #2

Patterns in Decompositions

Andre and Priya played snap with 8 cubes. They used 2 different colors to show how they broke their tower.

- Write an expression to represent the 2 parts in each drawing.



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Patterns in Decompositions

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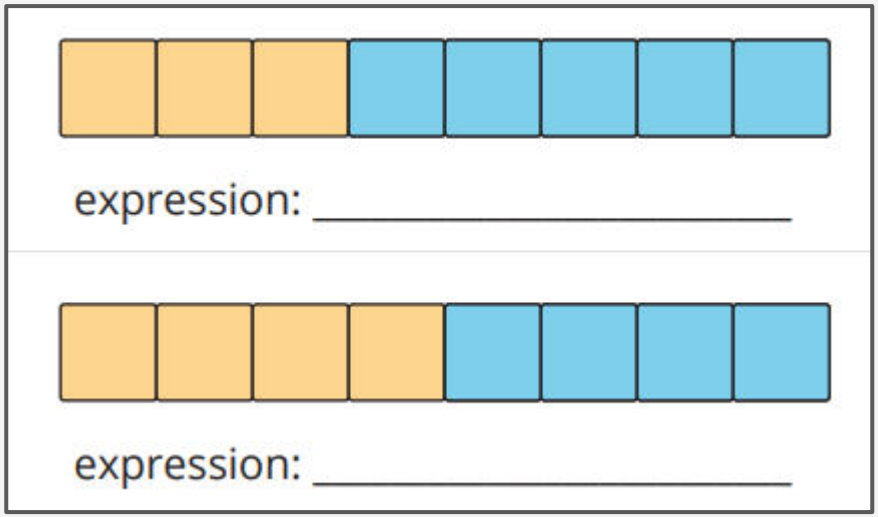
- Write an expression to represent the 2 parts in each drawing.



Activity #2

Patterns in Decompositions

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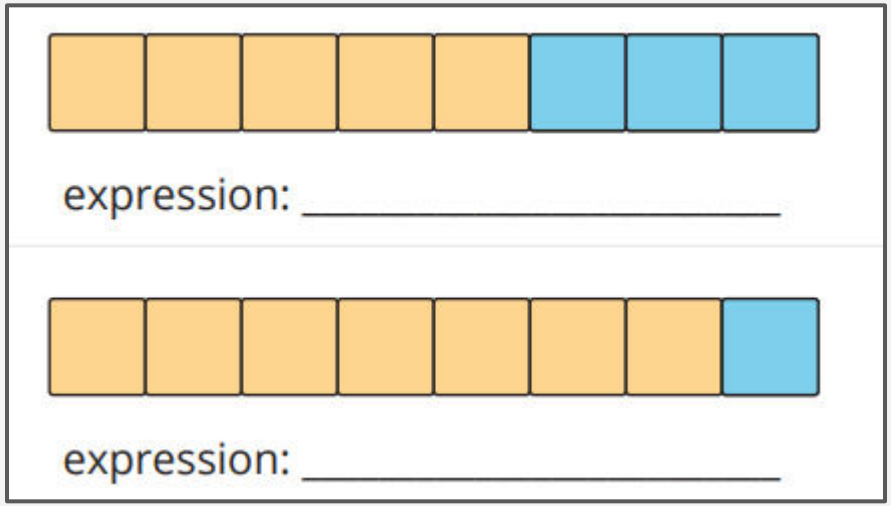
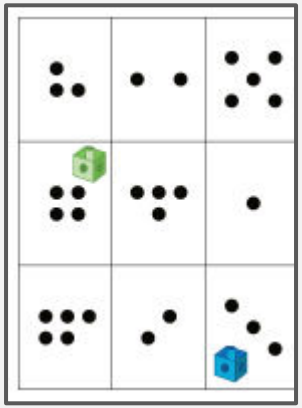
- Write an expression to represent the 2 parts in each drawing.



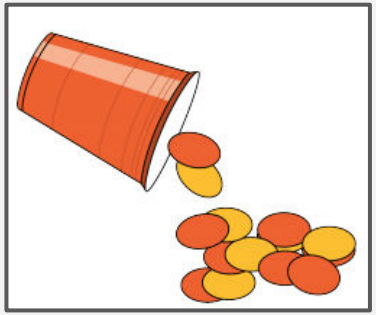
Activity #3

Centers: Choice Time

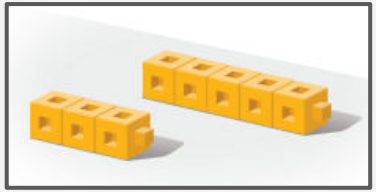
Roll and Add, Addition Expressions



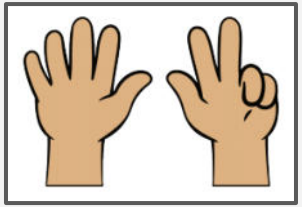
Shake and Spill, Cover



Snap the Cubes, Show 2 Parts



Math Fingers, Add 2 Hands



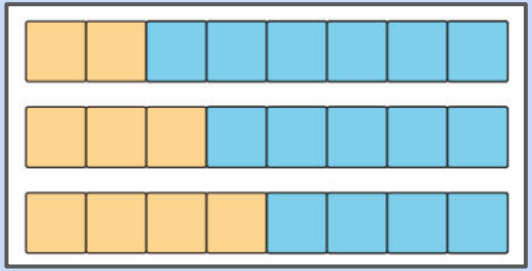
Lesson Synthesis

Today we recognized patterns when we broke numbers into 2 parts.

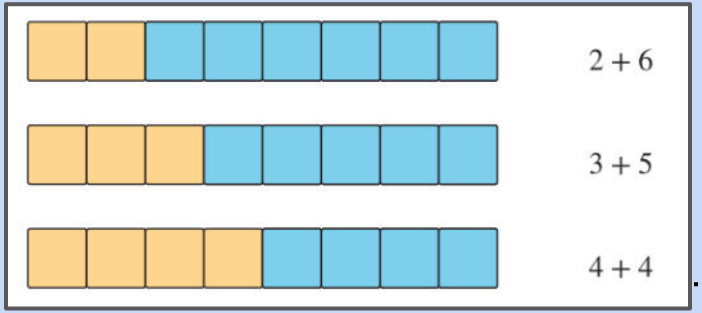
Tell your partner what pattern you noticed.

Section Summary

We broke numbers apart in different ways.



We wrote expressions to represent the 2 parts a number was broken into.



6

Find All the Ways

Let’s find all the ways to break apart a number.

K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Choral Count: Count On

Let’s count to 60.

Activity #1

Did She Find All the Ways?

Mai has 9 cubes. She is looking for all of the different ways she can break 9 into 2 parts.

- She recorded each way with an expression.
- Do you think Mai found all the ways? Why or why not?

Mai's work:

$0 + 9$

$1 + 8$

$2 + 7$

$4 + 5$

$5 + 4$

$6 + 3$

$7 + 2$

$8 + 1$

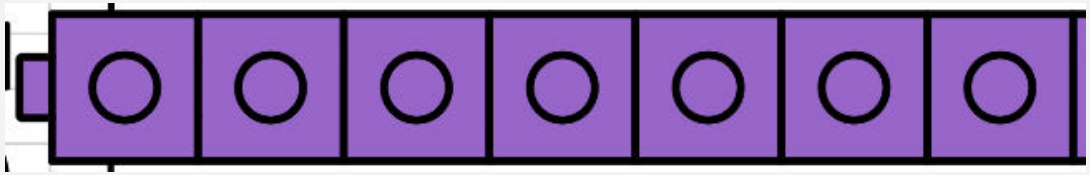
$9 + 0$

Activity #2

Find All the Ways

Find all the different ways you can break apart 7 into 2 parts.

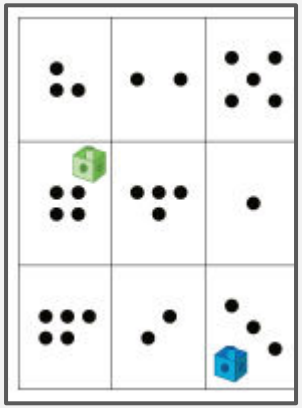
Show each way with cubes or counters and an expression.



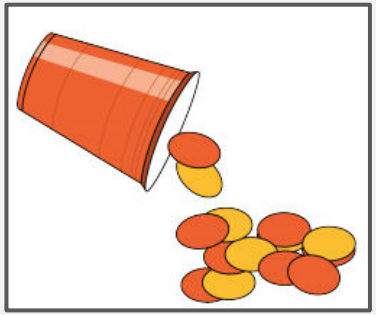
Activity #3

Centers: Choice Time

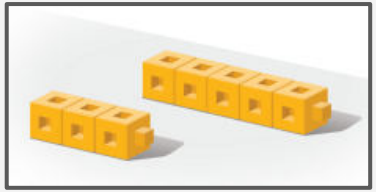
Roll and Add, Addition Expressions



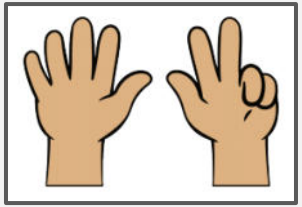
Shake and Spill, Cover



Snap the Cubes, Show 2 Parts

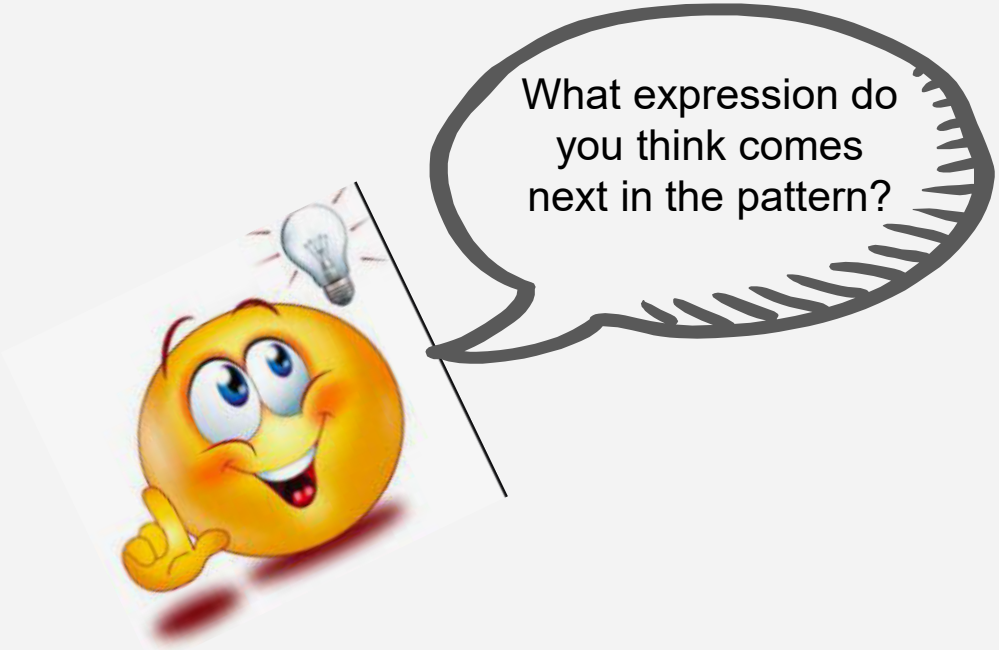


Math Fingers, Add 2 Hands



Lesson Synthesis

Today we used patterns to help us find all the ways to make 7.



$$0+7$$
$$1+6$$
$$2+5$$

Put Together

Let’s show what happens in a story problem and solve it.

Warm up

Notice and Wonder: Numberless Put Together Story Problem

What do you notice?

Elena is shopping at the market with her grandfather.

Elena chooses some mangoes.

Her grandfather chooses some pineapples.

How many pieces of fruit did they choose?

What do you wonder?

Activity #1

Fruit at the Market

Elena is shopping at the market with her grandfather.

Elena chooses 4 mangoes.

Her grandfather chooses 2 pineapples.

How many pieces of fruit did they choose?

A Bear with Berries

Activity #2

A bear was searching for berries to eat in the forest.

He ate 3 blueberries.

He ate 6 raspberries.

How many berries did the bear eat?

Centers: Introduce Make or Break Apart Numbers, Dots

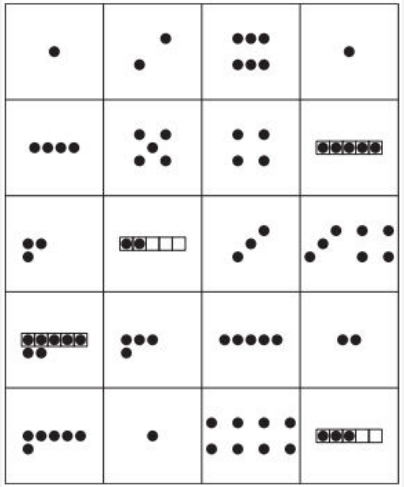
Activity #3

We are going to learn a new center called Make or Break Apart Numbers.

I'm going to roll a cube onto the number mat to find which number I have to make.

We rolled the number 5. My partner and I have to find 2 groups of dots that go together to make 5. Which groups of dots go together to make 5?

I'm going to put a counter on this group of 3 dots and a counter on this group of 2 dots. 3 dots and 2 dots is 5 dots. What expression should I write on my recording sheet.

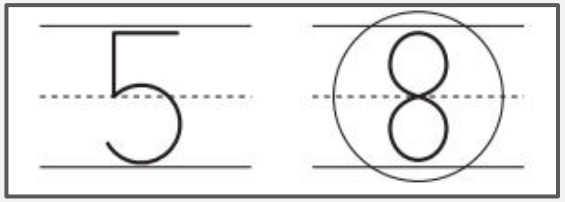


Now that my partner and I have written our expression, we can look to see if there are 2 more groups of dots that go together to make 5 dots. If we can't find any more ways to make 5, then we roll and make another number.

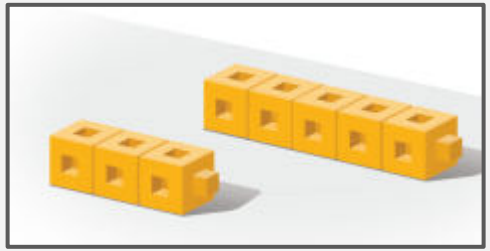
Activity #3

Centers: Choice Time

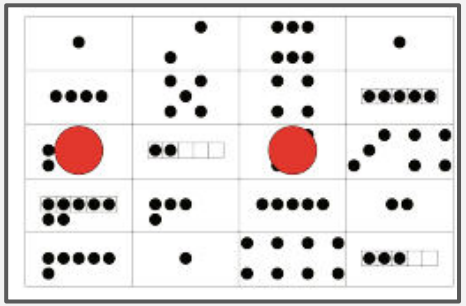
Roll and Record, Which is Less?



Snap the Cubes, Show 2 Parts



Make or Break Apart Numbers, Dots



Lesson Synthesis

Today we read and solved story problems.

A bear was searching for berries to eat in the forest.
He ate 3 blueberries.
He ate 6 raspberries.
How many berries did the bear eat?

What can you add to or change about your work to show what is happening in the story?

8

Red and Yellow Apples

Let’s solve story problems.

K.CC.A.3, K.CC.C.7, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Act It Out: All About Apples

- Mai was picking apples at the orchard.
- Mai picked 5 yellow apples and 2 red apples.
- How many apples did she pick?

Two Problems about Apples

Activity #1

1. Mai was picking apples at the orchard.

Mai picked 5 yellow apples and 2 red apples.

How many apples did she pick?

2. Lin picked 8 apples at the orchard.

Some of the apples were yellow.

The rest of the apples were red.

Activity #2

Yellow Apples and Red Apples

Lin picked 8 apples at the orchard.

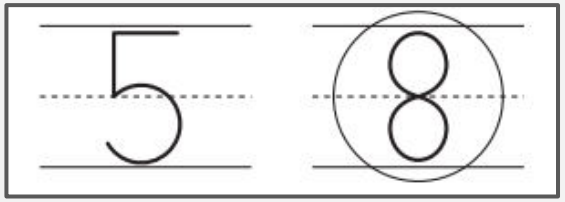
Some of the apples were yellow.

The rest of the apples were red.

Activity #3

Centers: Choice Time

Roll and Record, Which is Less?



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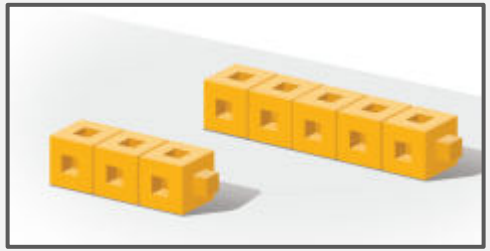
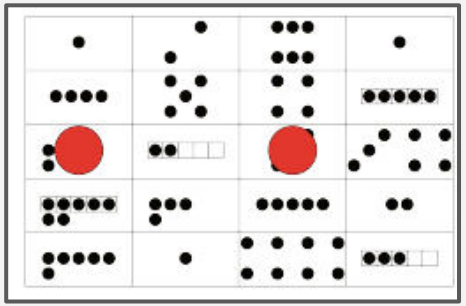
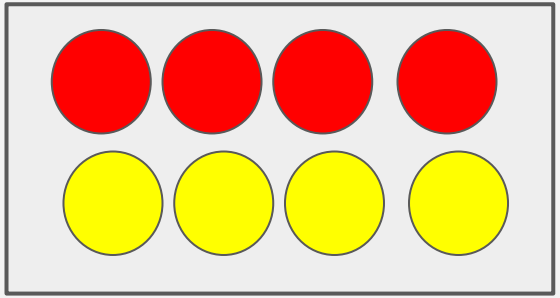
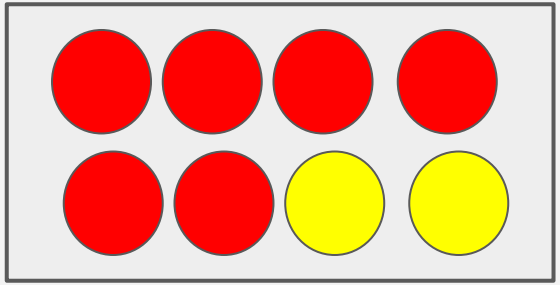


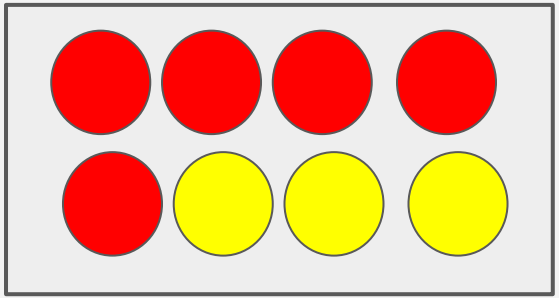
Make or Break Apart Numbers, Dots



Lesson Synthesis







What is the same about all of their work?

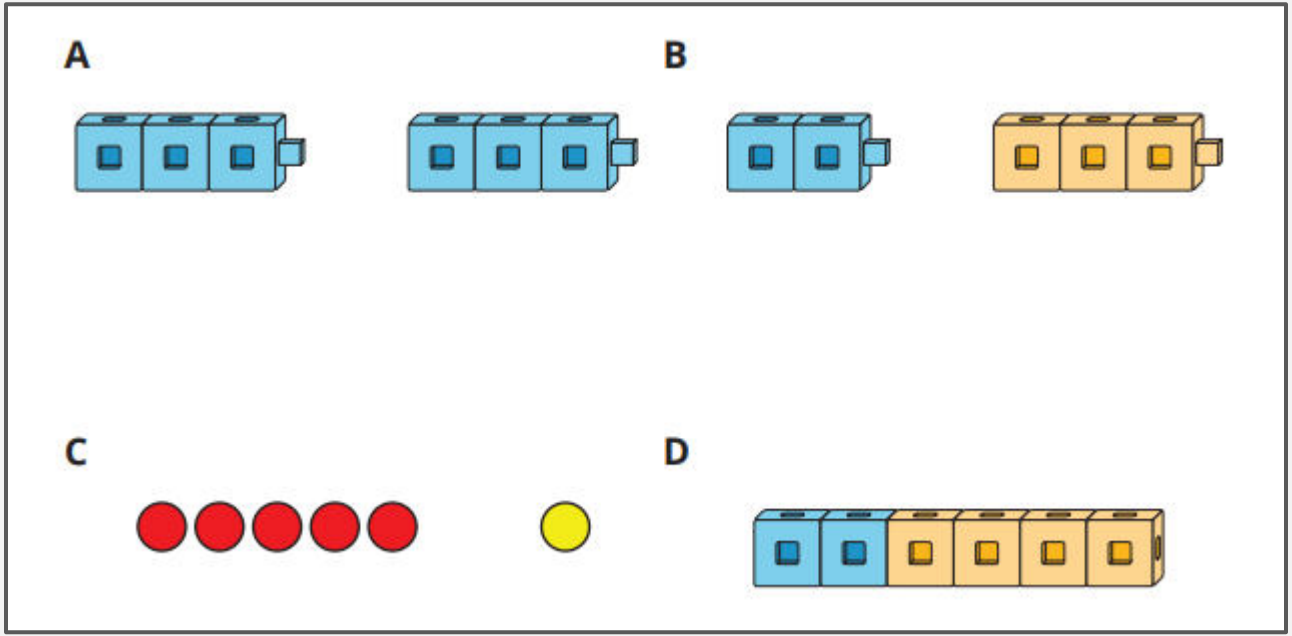
9

Solve Both Addends Unknown

Let’s solve story problems.

Warm up

Which One Doesn't Belong: Decompose with Math Tools



Activity #1

Fruit for Paletas

Jada made 6 paletas with her brother.

They made two flavors, lime and coconut.

How many of the paletas were lime?

Then how many of the paletas were coconut?

Activity #2

Pomegranates

Kiran had 7 pomegranates in his bag.

He put some of the pomegranates on the shelf.

He put the rest of the pomegranates in a basket.

How many of the pomegranates were on the shelf?

Then how many of the pomegranates were in the basket?

Centers: Introduce Math Stories, Both Addends Unknown

Activity #3

We are going to learn a new way to play our Math Stories center.

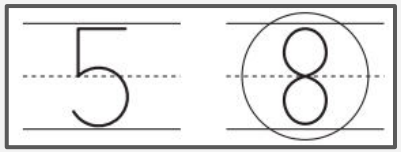
Priya picked all the apples from the apple tree. One partner will tell a story about which apples Priya put in the green basket and which apples she put in the red basket.

- Think of a story you can tell your partner.
- Now I need to use objects or drawings to show what happened in my partner's story. How can I show what happened in my partner's story?
- Once I finish using objects or drawings to show what happened in my partner's story, I need to tell my partner a different story about the apples and the baskets.

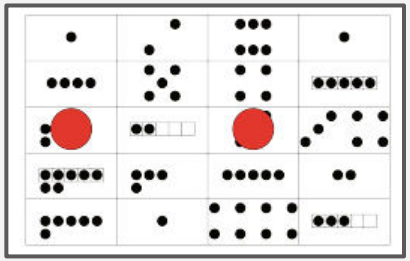
Activity #3

Centers: Choice Time

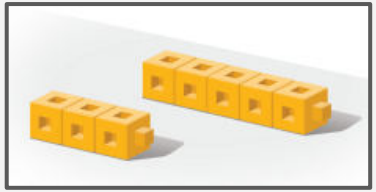
Roll and Record, Which is Less?



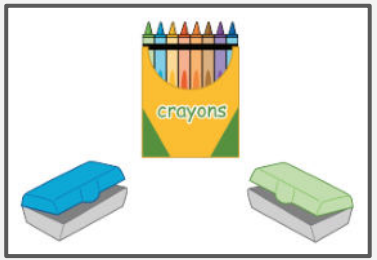
Make or Break Apart Numbers, Dots



Snap the Cubes, Show 2 Parts

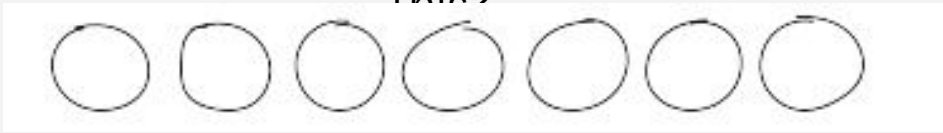


Math Stories, Both Addends Unknown

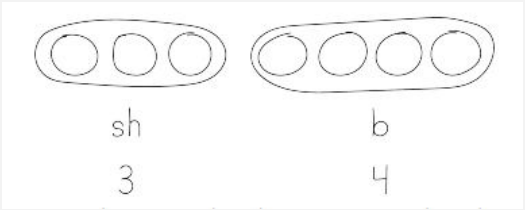


Lesson Synthesis

Priya wants to show that 5 of the pomegranates are on the shelf and 2 of the pomegranates are in the basket. What can she change or add to the drawing to show this?



Tyler drew this picture.
Does Tyler's picture show the story?



We can use labels, colors, and numbers to help us show what is happening in the story.

10

More Than One Way

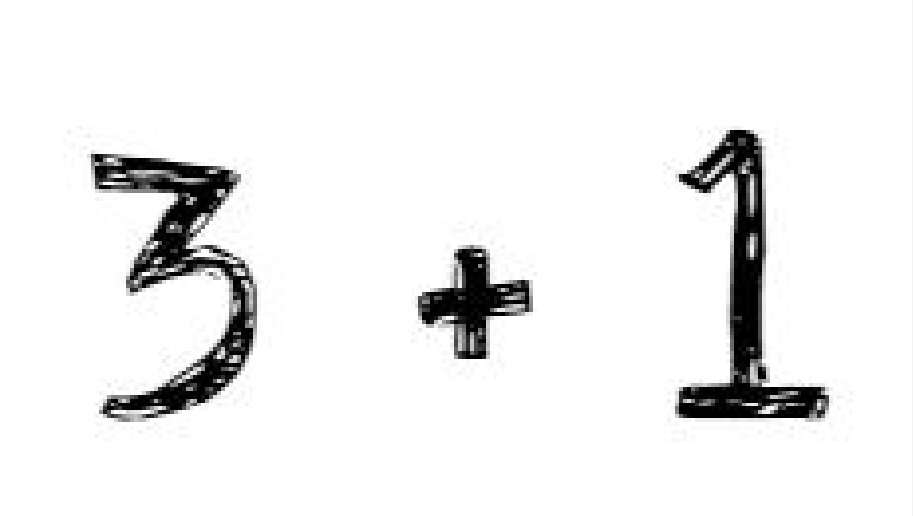
Let’s find more than one way to solve a problem.

K.CC.A.3, K.CC.C.7, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Number Talk: Expressions

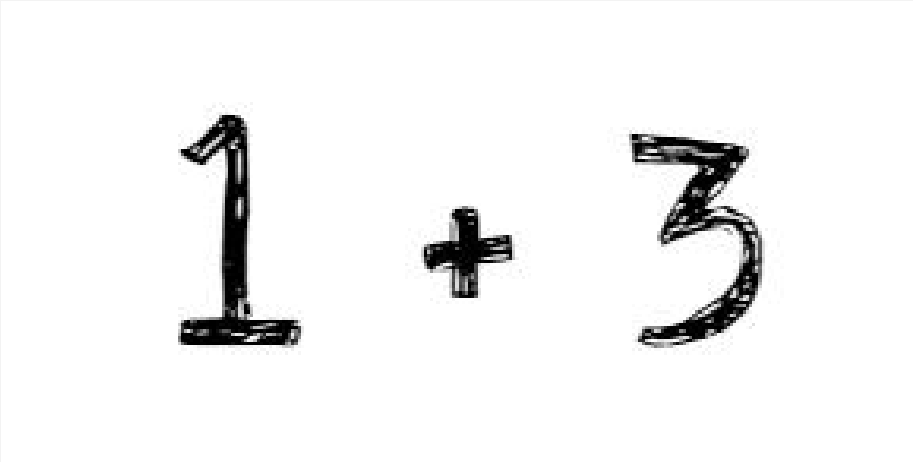
Add or Subtract



Warm up

Number Talk: Expressions

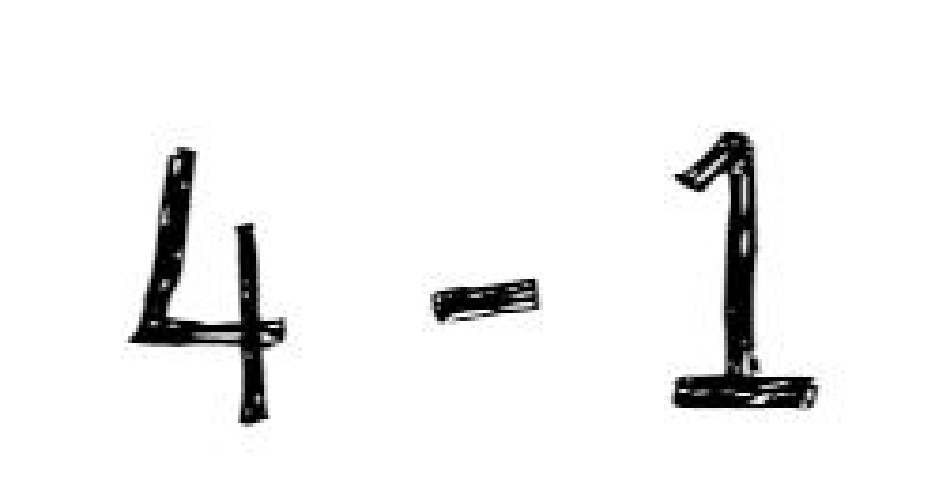
Add or Subtract



Warm up

Number Talk: Expressions

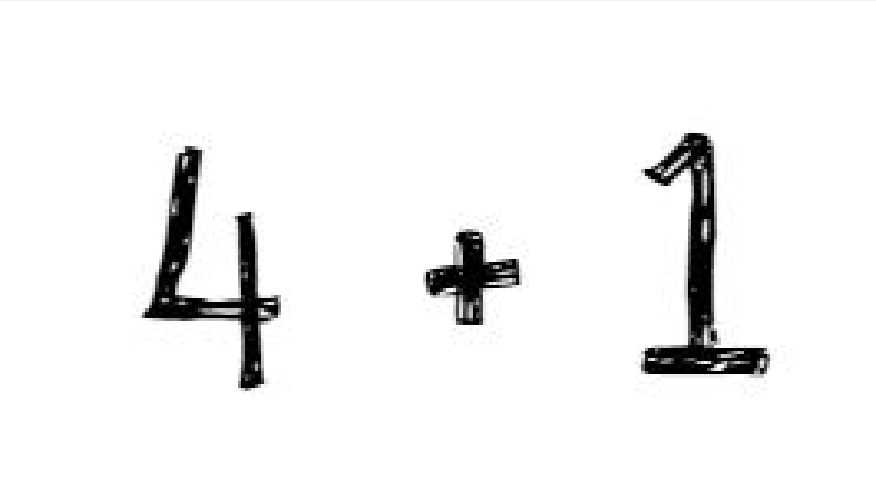
Add or Subtract



Warm up

Number Talk: Expressions

Add or Subtract



Citrus Juice

Activity #1

Han squeezed 9 pieces of fruit to make juice.

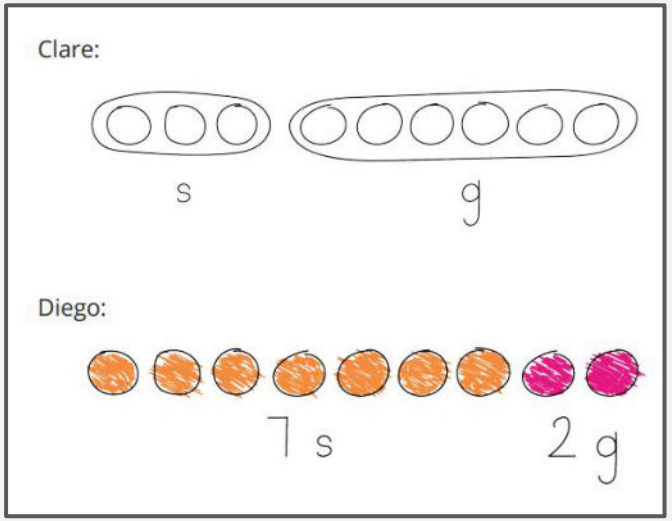
Some of the fruits were satsumas.

The rest of the fruits were grapefruits.

How many of the fruits were satsumas?

Then how many of the fruits were grapefruits?

- Which drawing represents the story?



Dates to Stuff

Activity #1

Andre and his older brother have 8 dates.

They stuff some of the dates with cheese.

They stuff the rest of the dates with almonds.

How many of the dates did they stuff with cheese?

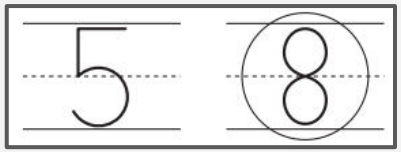
Then how many of the dates did they stuff with almonds?

- Tell your partner what happened in the story.
- What are we trying to figure out?
- Show your thinking using drawings, numbers, words or objects.

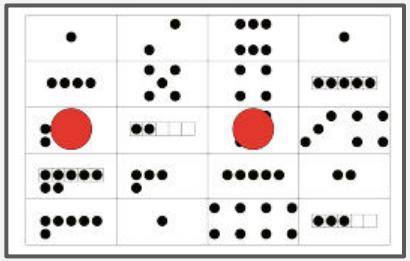
Activity #3

Centers: Choice Time

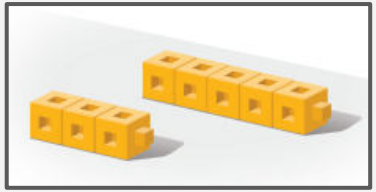
Roll and Record, Which is Less?



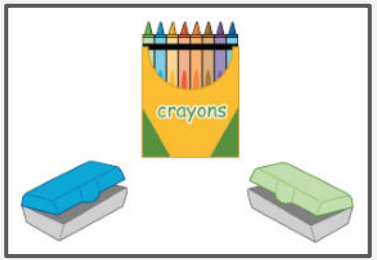
Make or Break Apart Numbers, Dots



Snap the Cubes, Show 2 Parts

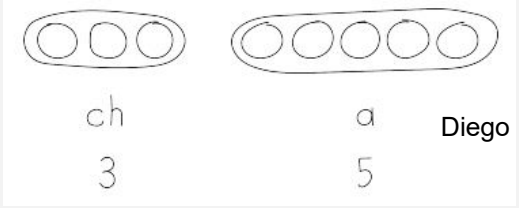


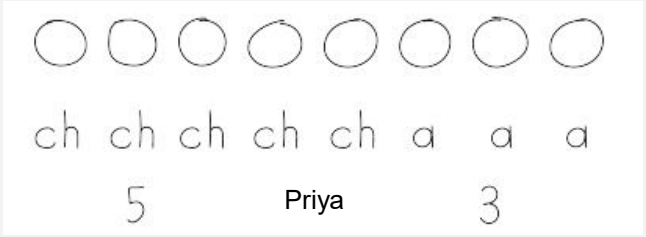
Math Stories, Both Addends Unknown



Lesson Synthesis

Andre and his older brother have 8 dates.
They stuff some of the dates with cheese.
They stuff the rest of the dates with almonds.
How many of the dates did they stuff with cheese?
Then how many of the dates did they stuff with almonds





Diego and Priya drew these pictures to show what happened in the story. Priya says that they found the same answer to the story problem. What do you think?

8 = 3 + 5

11

All of the Story Problems

Let’s solve story problems.

K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.C.7, K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Choral Count:
Count to 70 and Count On

Let's count to 70.

Now, start at the number 7 and count to 30.

All the Story Problems

Activity #1

Mai grew 7 tomatoes in her garden.

She picked 5 of the tomatoes to make salsa.

How many tomatoes are still in the garden?

- Tell your partner what happened in the story.
- What are we trying to figure out?
- Show your thinking using drawings, numbers, words, or objects.

All the Story Problems

Activity #1

There are 9 tomatoes in Mai's garden.

Some of the tomatoes are yellow.

The rest of the tomatoes are red.

How many of the tomatoes are yellow?

Then how many of the tomatoes are red?

- Tell your partner what happened in the story.
- What are we trying to figure out?
- Show your thinking using drawings, numbers, words, or objects.

Make and Match Story Problems

Activity #2

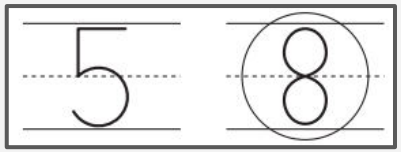
You are going to think of a different story problem about fruits or vegetables in a garden. Remember that your story problem should have a question at the end. You can write words or draw pictures to help you remember the story problem that you create.

- Tell your partner your story problem.
- Solve the story problem your partner told you.
- Show your thinking using objects, drawings, numbers, or words

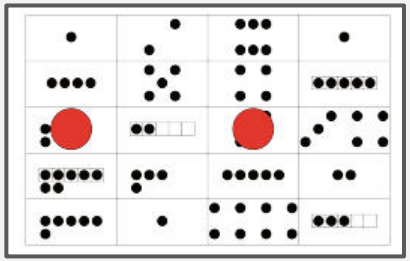
Activity #3

Centers: Choice Time

Roll and Record, Which is Less?



Make or Break Apart Numbers, Dots



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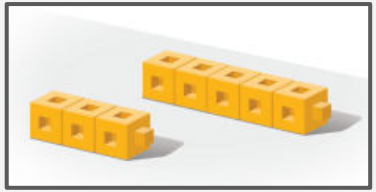
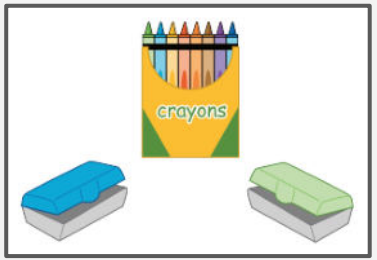


Math Stories, Both Addends Unknown



Lesson Synthesis

Today we solved many different story problems about tomatoes in a garden.

1. Mai grew 7 tomatoes in her garden. She picked 5 of the tomatoes to make salsa. How many tomatoes are still in the garden?

2. There are 9 tomatoes in Mai's garden. Some of the tomatoes are yellow. The rest of the tomatoes are red. How many of the tomatoes are yellow? Then how many of the tomatoes are red?

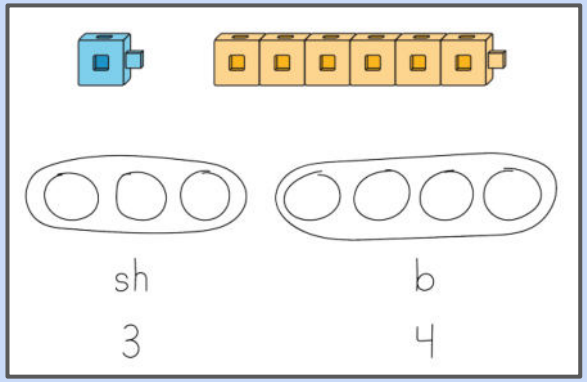
Why did we all get the same answer to the first story problem? Why did we get different answers for the second story problem?

Section Summary

In this section, we solved story problems with more than one solution.

Kiran had 7 pomegranates in his bag.
He put some of the pomegranates on the shelf.
He put the rest of the pomegranates in a basket.
How many of the pomegranates were on the shelf?
Then how many of the pomegranates were in the basket?

We used objects and drawings to solve story problems.



12

Introduce the 10-frame

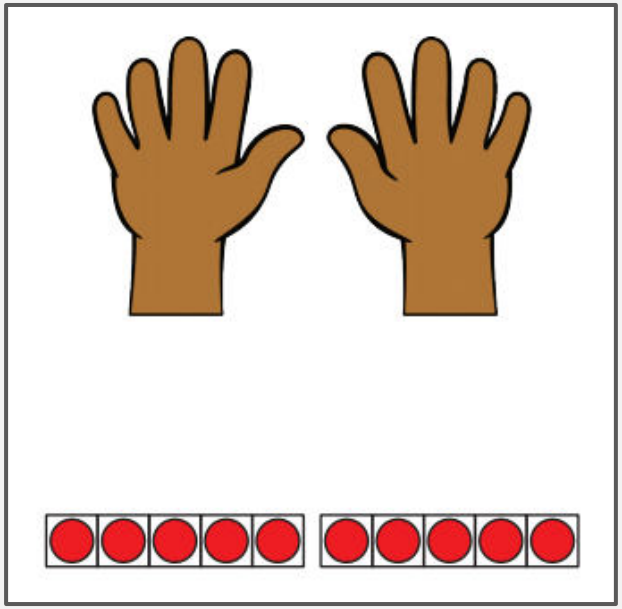
Let’s make and use 10-frames.

K.CC.A.3, K.CC.B, K.CC.B.4.b, K.CC.B.5, K.CC.C.6, K.OA.A.1, K.OA.A.2, K.OA.A.4

Warm up

Notice and Wonder: Fingers and Two 5-frames

What do you notice?



What do you wonder?

Introduce 10-frames

Activity #1

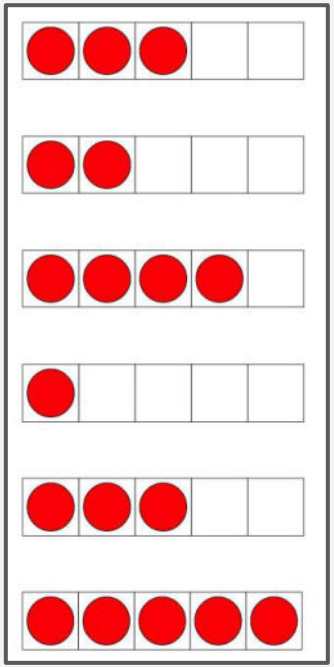
Cut out and glue the 5-frames to make each number.

6

9

8

10

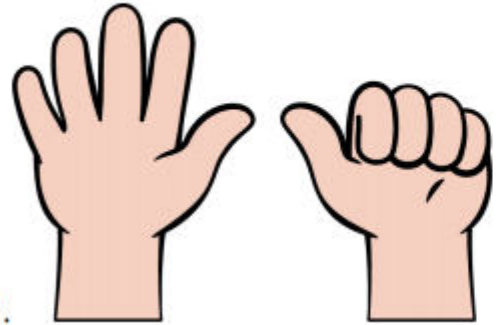


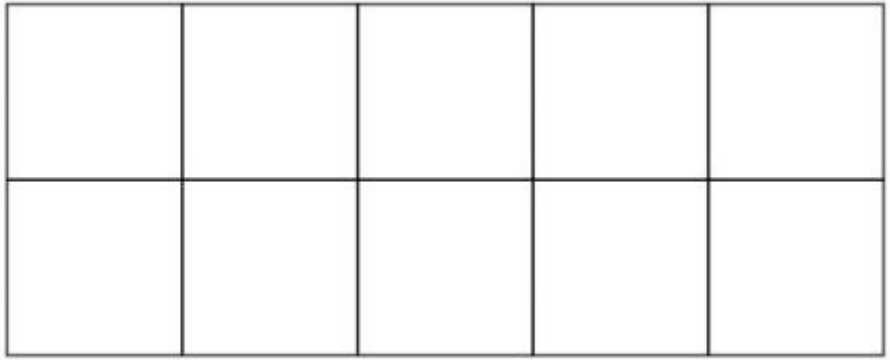
Numbers on Fingers and 10-frames

Activity #2

- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.

1.

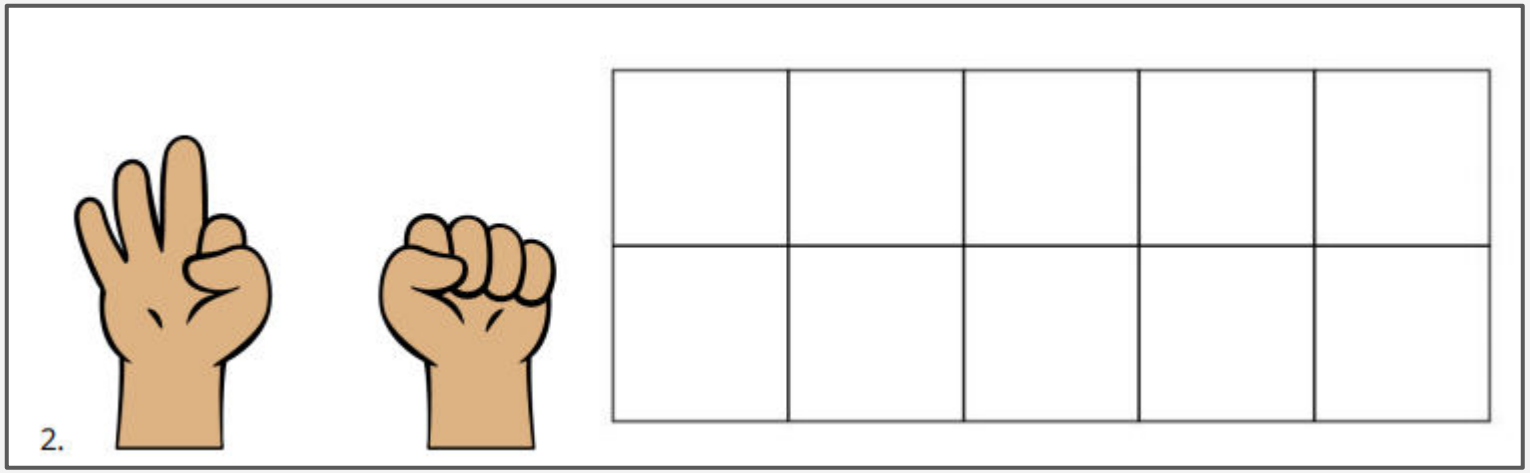




Numbers on Fingers and 10-frames

Activity #2

- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.

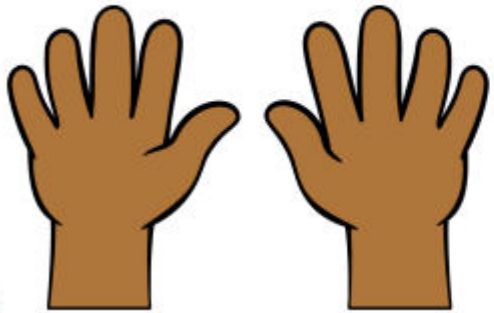


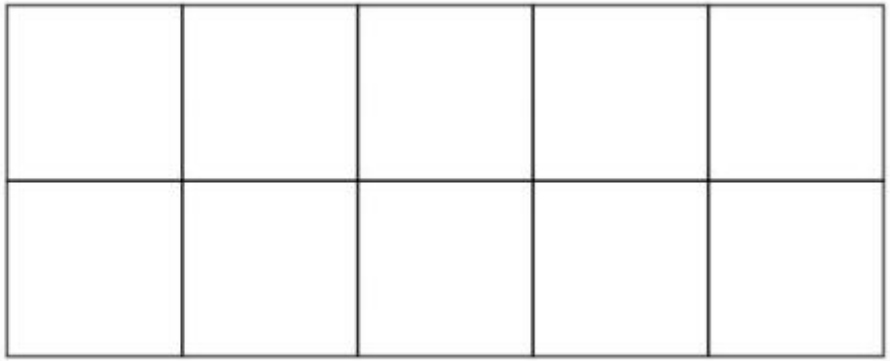
Numbers on Fingers and 10-frames

Activity #2

- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.

3.

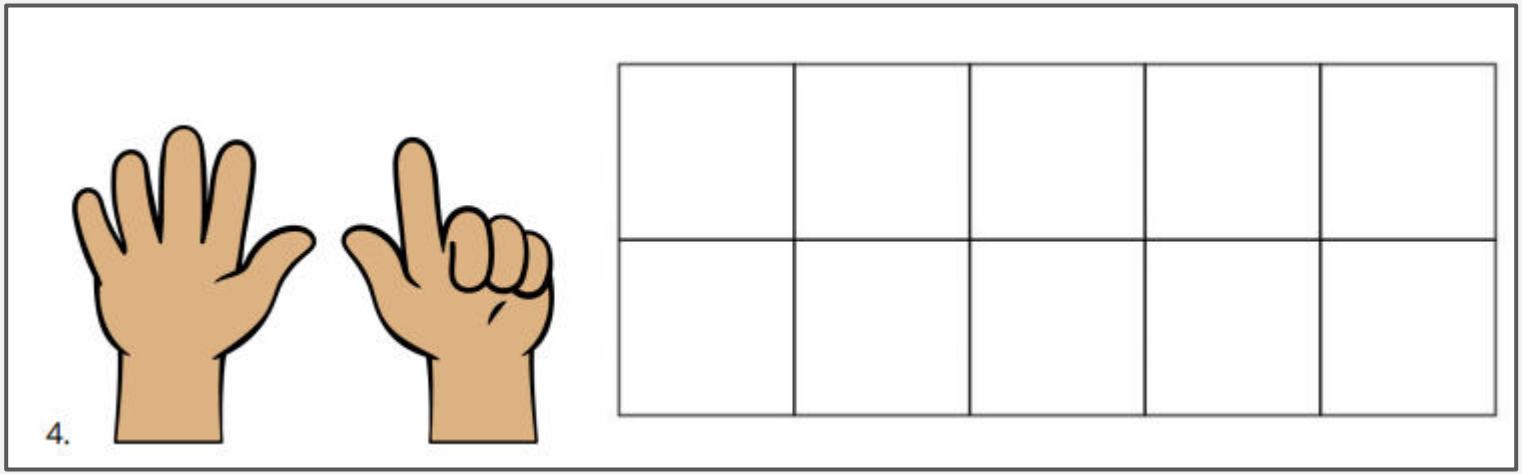




Numbers on Fingers and 10-frames

Activity #2

- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.

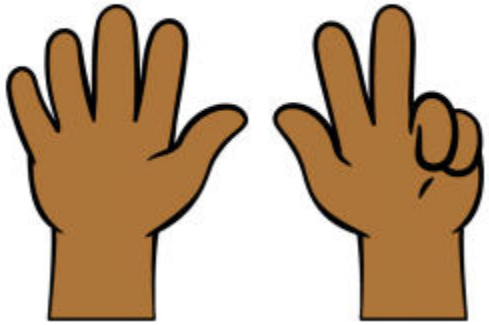


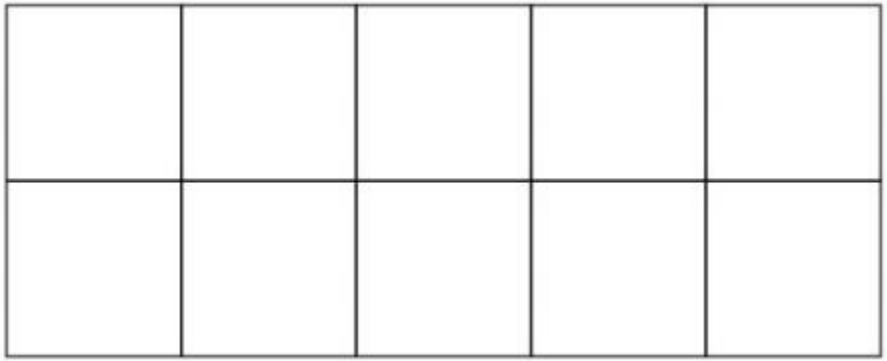
Numbers on Fingers and 10-frames

Activity #2

- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.

5.

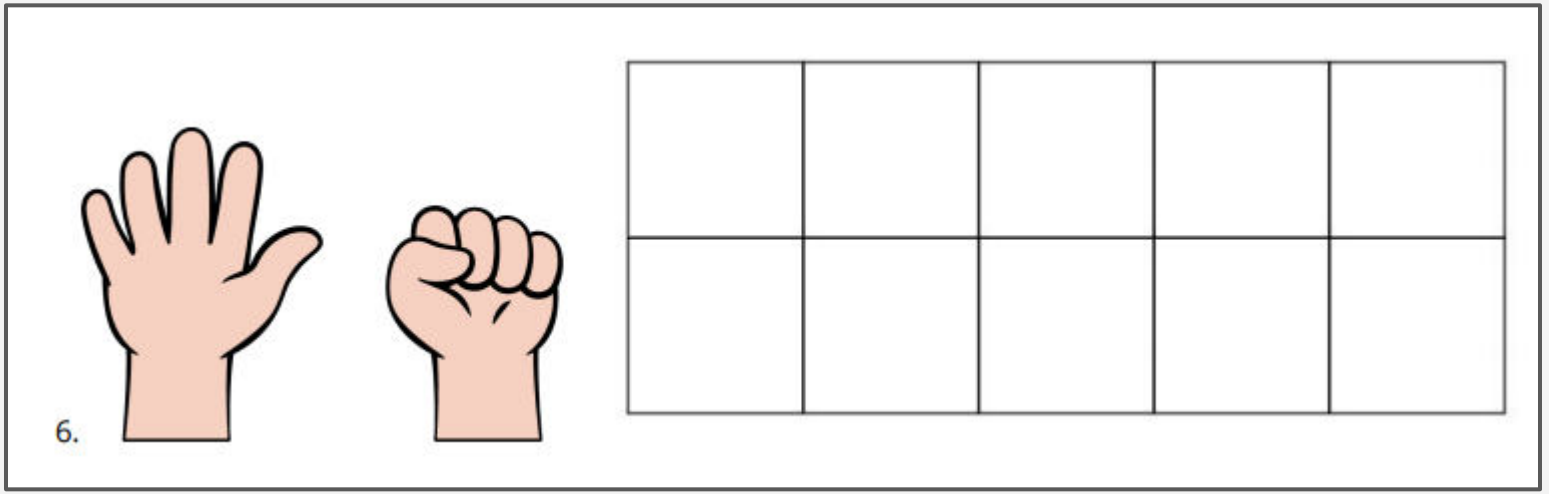




Numbers on Fingers and 10-frames

Activity #2

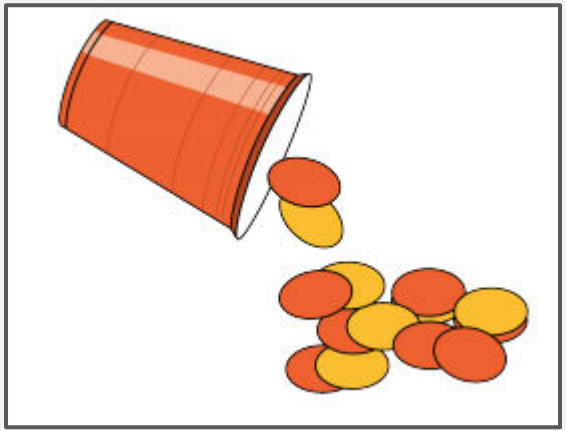
- Figure out how many fingers are held up in each picture.
- Then use your counters to show that number on the 10-frame.



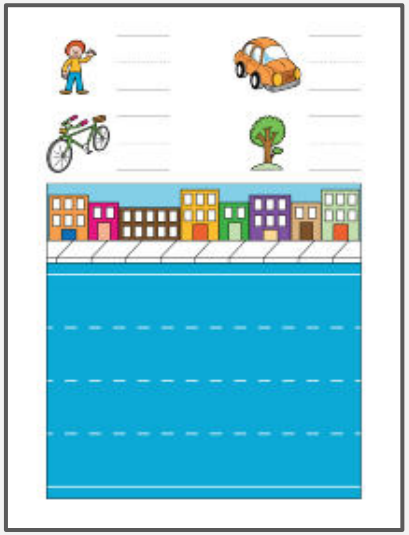
Activity #3

Centers: Choice Time

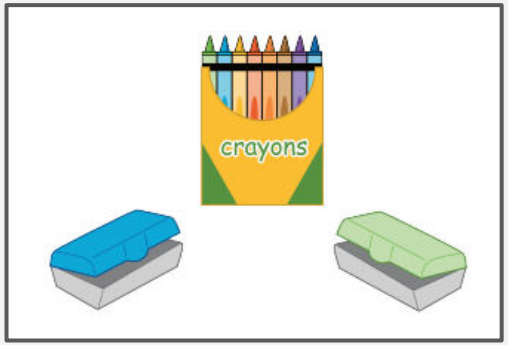
Shake and Spill



Math Libs, Draw 1-10

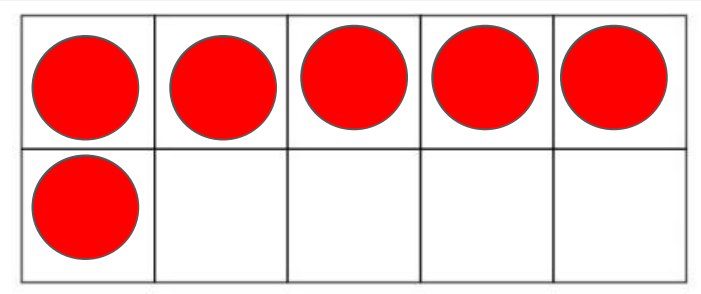


Math Stories, Both Addends Unknown



Lesson Synthesis

Today we used a new tool called a 10-frame to organize and show numbers



Tell your partner what you know about this 10-frame

Use your fingers to show how many counters are on the 10-frame.

13

Equations that Show Compositions and Decompositions of 10

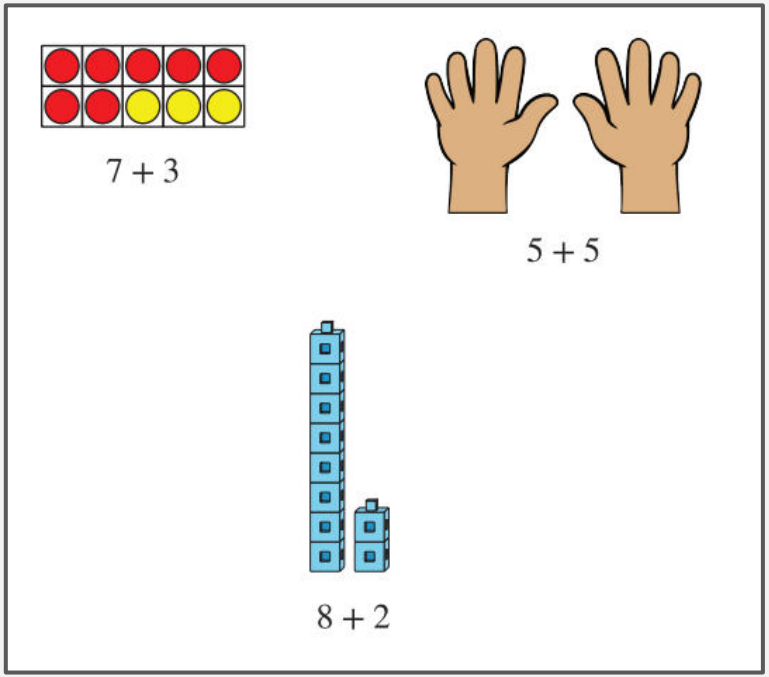
Let’s match equations to 10-frames and fingers.

K.CC.A.3, K.CC.B.4.b, K.CC.B.5, K.CC.C.6, K.OA.A.1, K.OA.A.2, K.OA.A.4

Warm-Up

Notice and Wonder: Expressions for 10

What do you notice?

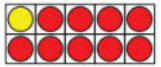


What do you wonder?

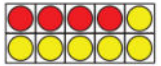
Match Equations and 10-frames

Activity #1

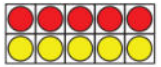
1.



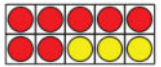
2.



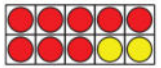
3.



4.



5.



$10 = 7 + 3$

$10 = 8 + 2$

$10 = 1 + 9$

$10 = 4 + 6$

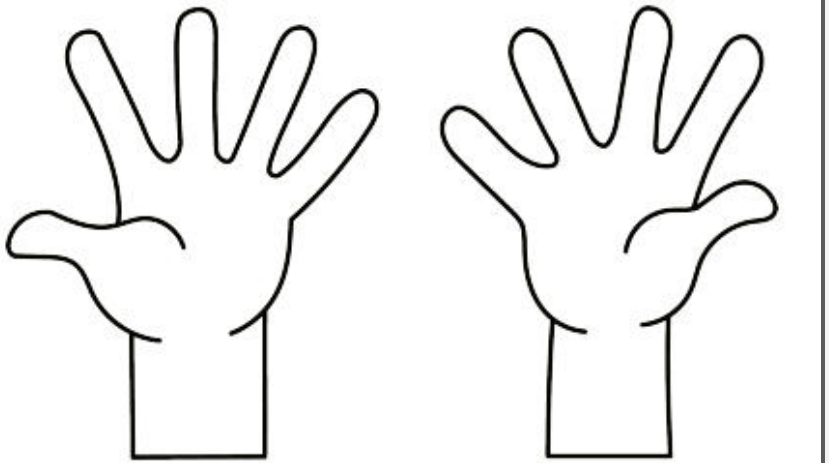
$10 = 5 + 5$

Represent Equations with Fingers

Activity #2

Color the fingers to represent each equation.

$10 = 6 + 4$

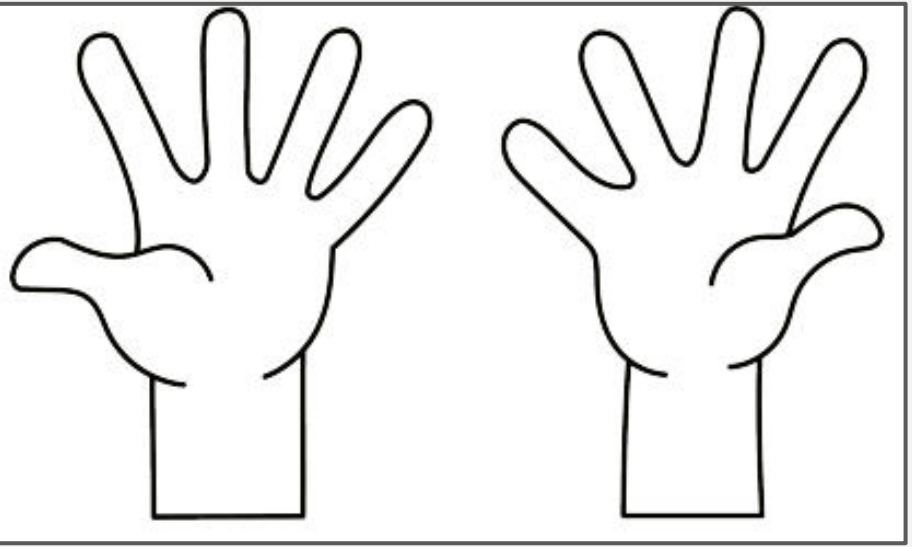


Represent Equations with Fingers

Activity #2

Color the fingers to represent each equation.

$10 = 9 + 1$

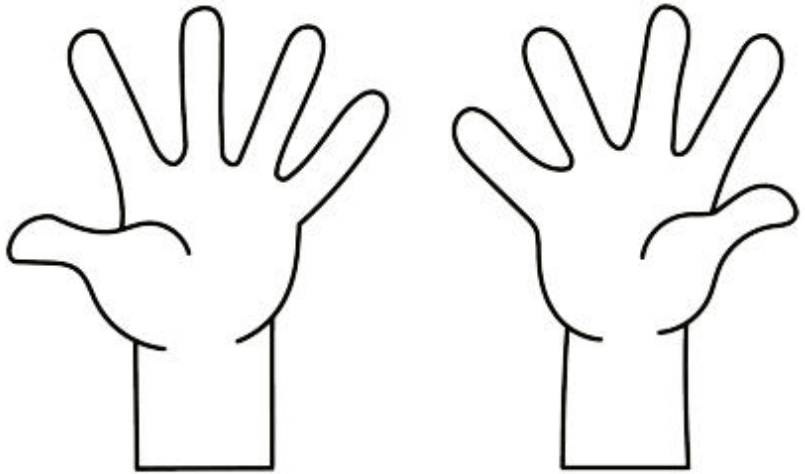


Represent Equations with Fingers

Activity #2

Color the fingers to represent each equation.

$10 = 5 + 5$

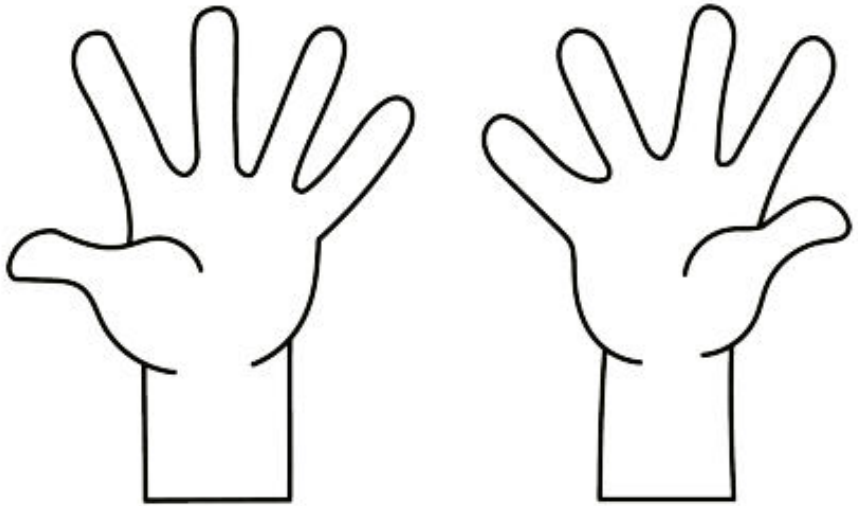


Represent Equations with Fingers

Activity #2

Color the fingers to represent each equation.

$10 = 3 + 7$

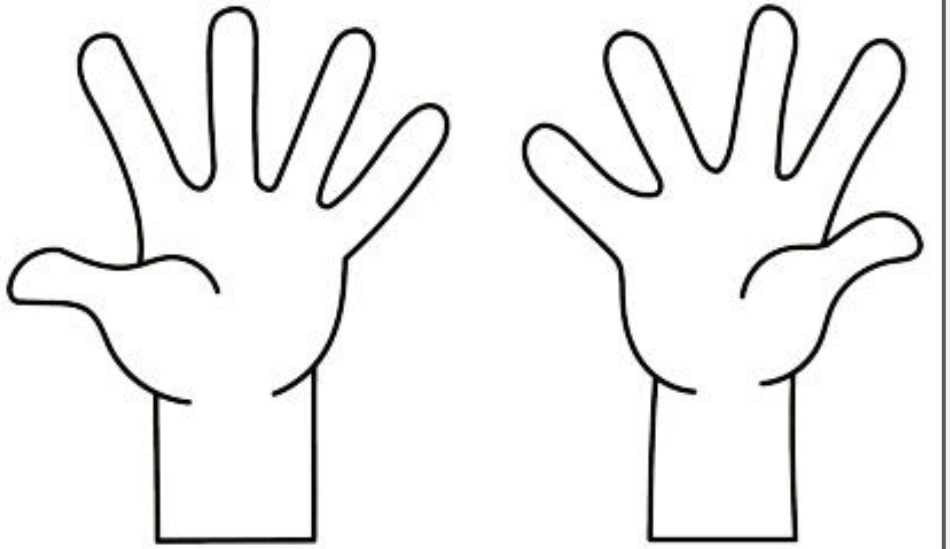


Represent Equations with Fingers

Activity #2

Color the fingers to represent each equation.

$10 = 8 + 2$

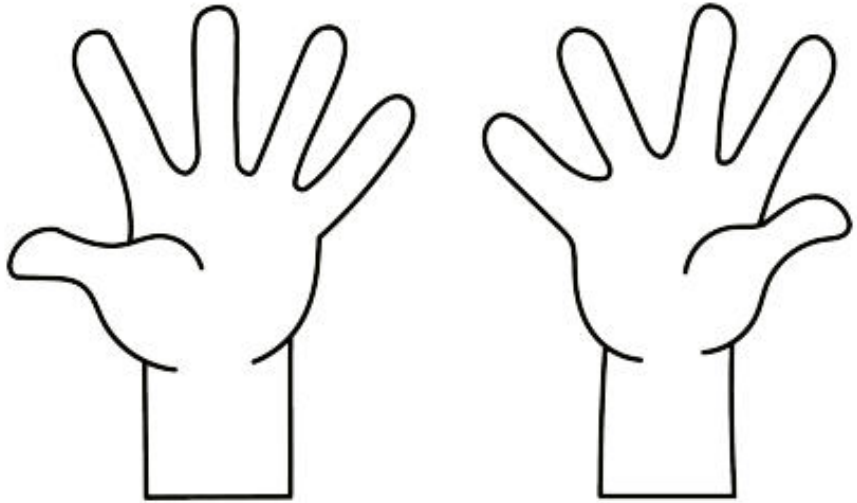


Activity #2

Represent Equations with Fingers

Color the fingers to represent each equation.

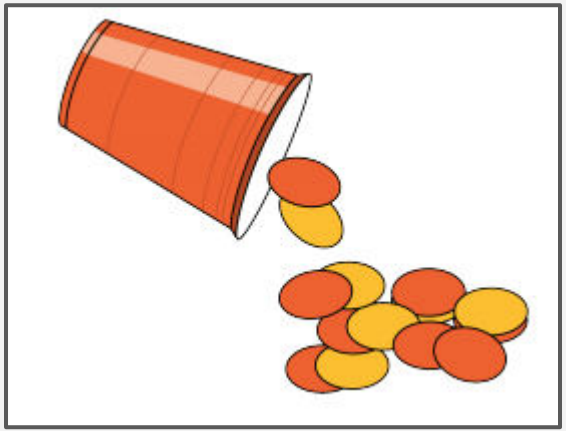
$10 = 1 + 9$



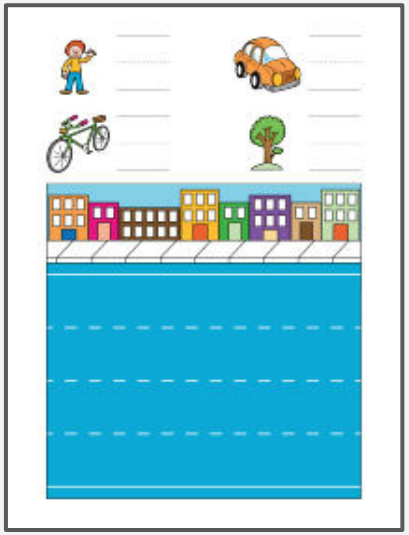
Activity #3

Centers: Choice Time

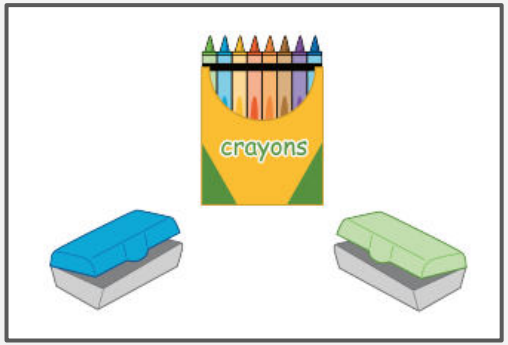
Shake and Spill



Math Libs, Draw 1-10



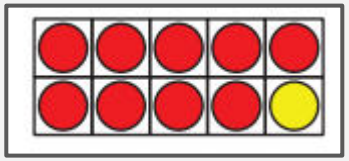
Math Stories, Both Addends Unknown

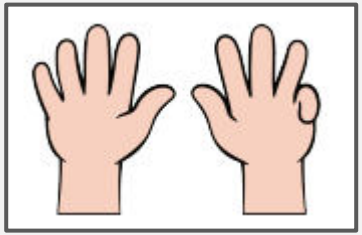


Lesson Synthesis

Today we used equations to show many different ways to make 10.

$10 = 9 + 1$





Where do you see 10 on the 10-frame and on the fingers?

Where do you see 9? Where do you see 1?

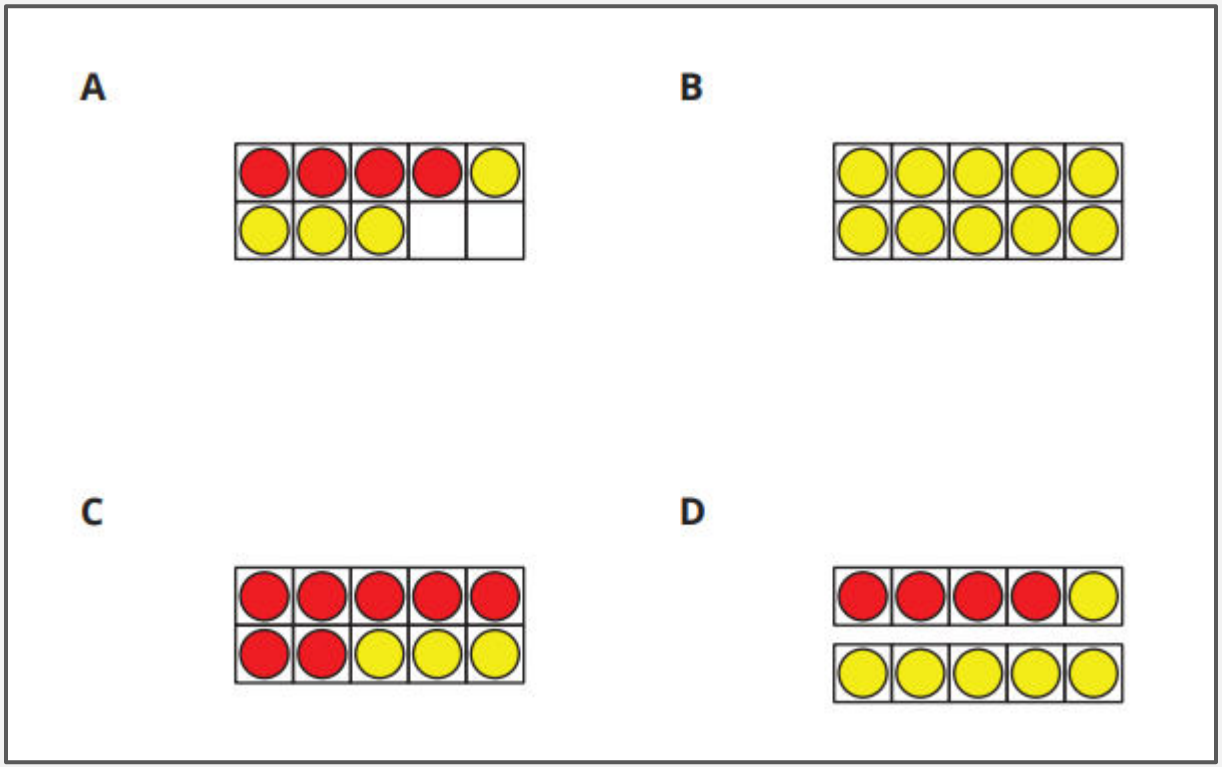
14

How Many Are Missing?

Let’s fill 10-frames in different ways.

Which One Doesn't Belong: 10-frames

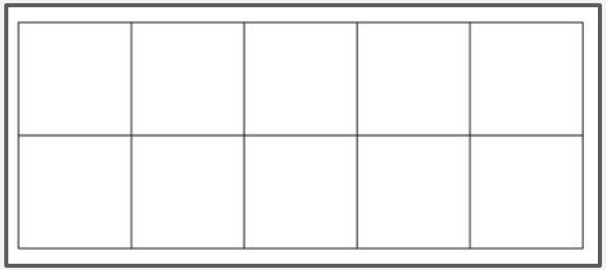
Warm up



Activity #1

Shake, Spill, and Arrange with 10

- Take turns shaking and spilling all 10 counters.
- Arrange the counters in the 10-frame at the top of your page.
- Then color in the equation that shows the red and yellow counters.
- If you get the same equation again, put a check in the box.



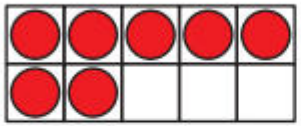
$10 = 5 + 5$	$10 = 9 + 1$	$10 = 4 + 6$
$10 = 2 + 8$	$10 = 6 + 4$	$10 = 3 + 7$
$10 = 1 + 9$	$10 = 8 + 2$	$10 = 5 + 5$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

1.



_____

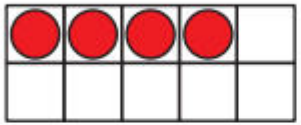
$10 = 7 + 3$ $10 = 8 + 2$ $10 = 5 + 5$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

2.



_____

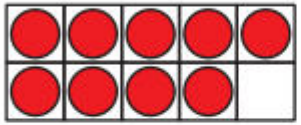
$10 = 8 + 2$ $10 = 1 + 9$ $10 = 4 + 6$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

3.



_____

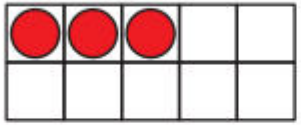
$10 = 9 + 1$ $10 = 5 + 5$ $10 = 7 + 3$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

4.



_____

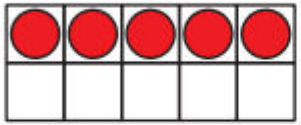
$10 = 5 + 5$ $10 = 3 + 7$ $10 = 2 + 8$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

5.



_____

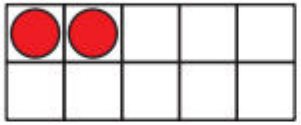
$10 = 9 + 1$ $10 = 6 + 4$ $10 = 5 + 5$

How Many to Fill the 10-frame?

Activity #2

- Figure out how many counters are needed to fill the 10-frame. Write a number to show many counters are needed to fill the 10-frame.
- Circle the equation that shows the number of counters in the 10-frame and the number of counters needed to fill the 10-frame.

6.



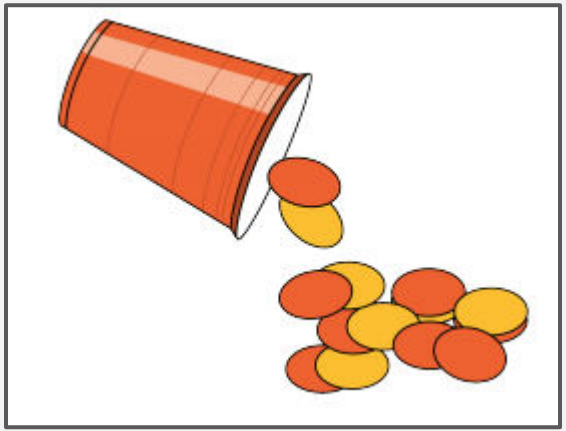
_____

$10 = 1 + 9$ $10 = 2 + 8$ $10 = 4 + 6$

Activity #3

Centers: Choice Time

Shake and Spill



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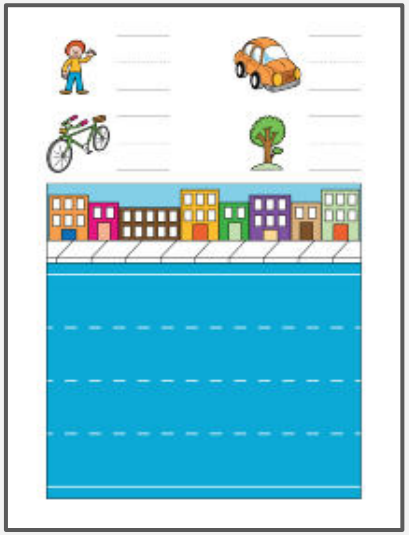
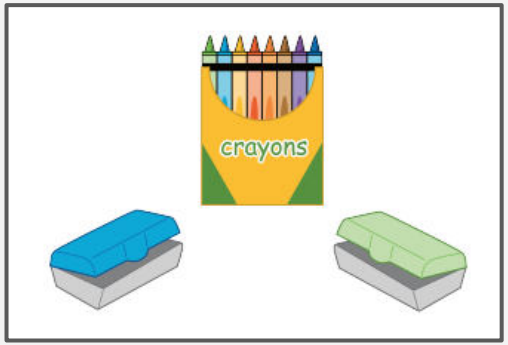
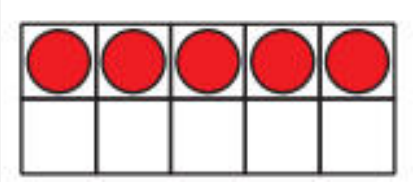


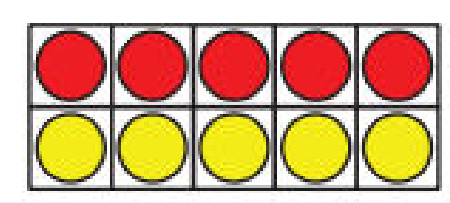
Math Stories, Both Addends Unknown



Lesson Synthesis

Jada spilled 10 counters. Here are the red counters Jada got when she was playing Shake and Spill.





How many yellow counters did Jada get? How do you know?

What equation can we use to show Jada's counters?

15

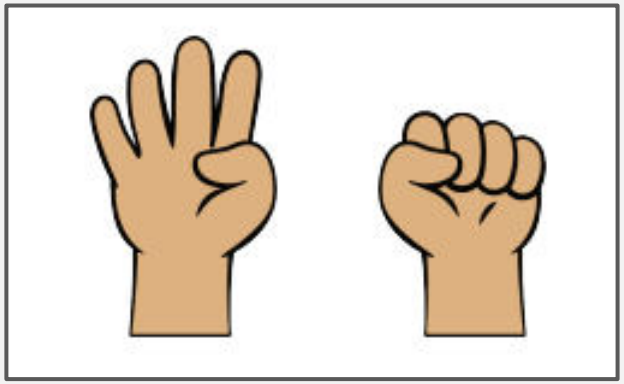
Make 10

Let’s make 10.

Warm up

How Many Do You See: Fingers Up and Down

How many do you see?

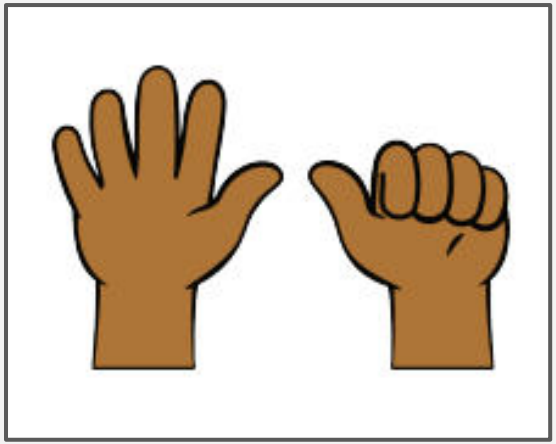


How do you see them?

Warm up

How Many Do You See: Fingers Up and Down

How many do you see?

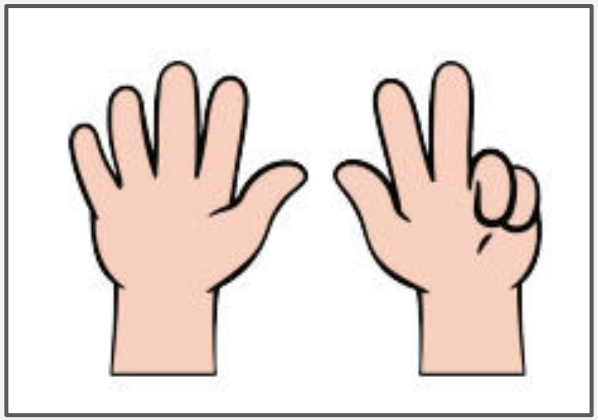


How do you see them?

Warm up

How Many Do You See: Fingers Up and Down

How many do you see?



How do you see them?

Activity #1

Introduce Math Fingers, Make 10

Now we are going to learn another way to play Math Fingers.

This game is called Math Fingers, Make 10. Let's play a round together.

- I rolled 7, so I am going to hold up 7 fingers.
- Now my partner needs to figure out how many more fingers I need to put up to show 10 fingers. How many more fingers do I need to hold up to make 10?
- Now we need to fill in an equation to show how many fingers are up and how many more fingers are needed to make 10. How should I fill in an equation?
- Take turns with your partner rolling to find a number and showing that number with your fingers. Your partner figures out how many more fingers are needed to make 10. You both fill in an equation to show how many fingers are up and how many more fingers are needed to make 10.

Make 10

Activity #2

Work with your partner to figure out which number you need to make 10 with each number.

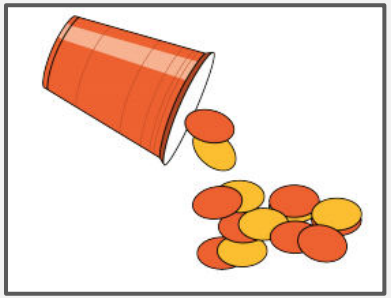
- Once you both agree, write a number on the line.
- Then fill in an equation to show 1 way to make 10.

3	_____	10 = _____ + _____
9	_____	10 = _____ + _____
2	_____	10 = _____ + _____
5	_____	10 = _____ + _____
7	_____	10 = _____ + _____
6	_____	10 = _____ + _____
8	_____	10 = _____ + _____
4	_____	10 = _____ + _____

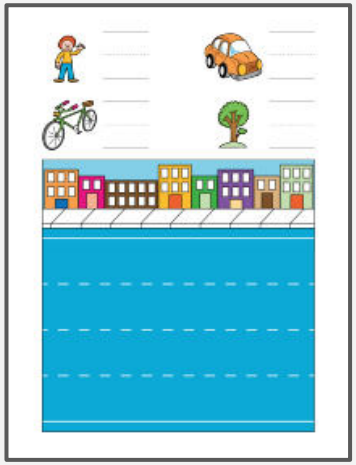
Activity #3

Centers: Choice Time

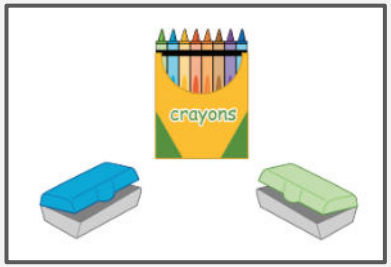
Shake and Spill



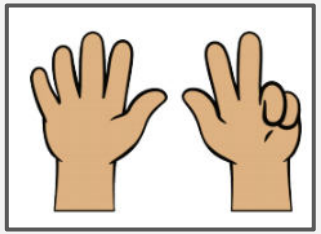
Math Libs, Draw 1-10



Math Stories, Both Addends Unknown



Math Fingers, Make 10



Lesson Synthesis

3

Show your partner how you can use your fingers to figure out what number goes with 3 to make 10.

$10 = 3 + 7$

Why are our fingers a helpful tool if we want to find different ways to make 10?

10 is 3 plus 7. 3 and 7 are 2 parts that go together to make 10.

16

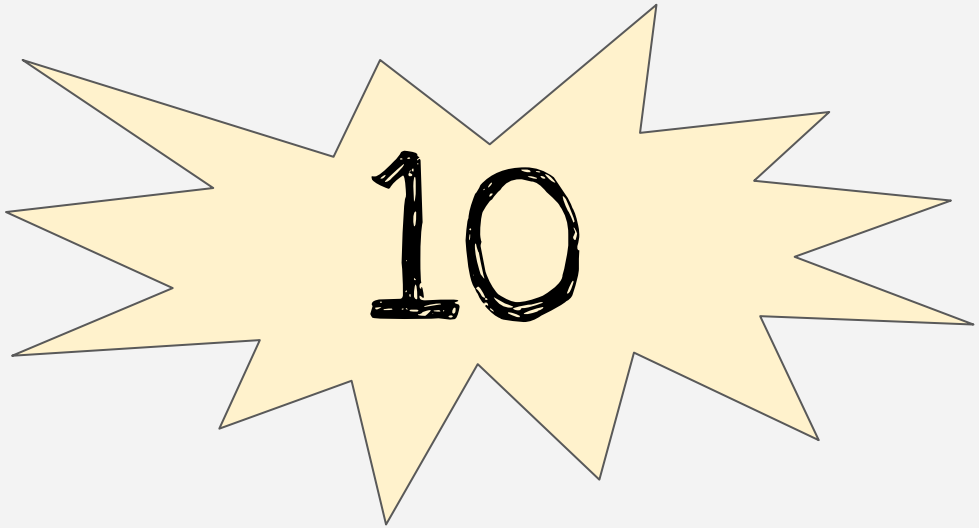
Towers of 10

Let’s figure out how many cubes are hidden.

K.CC.A.3, K.CC.B.4.b, K.CC.B.5, K.CC.C.6, K.OA.A.1, K.OA.A.2, K.OA.A.4

Warm up

What Do You Know About ?



Introduce Snap the Cubes, How Many Are Missing?

Activity #1

- Make a tower with 10 connecting cubes.
- Now we are going to learn another way to play Snap the Cubes . This game is called Snap the Cubes, How Many Are Missing? Let's play a round together.
- Choose who will go first. Snap the tower into two parts and hide one of the parts behind your back. Show your partner the other part.
- Figure out how many cubes are hidden behind your partner's back.
- Draw or color the connecting cube tower to show the two parts that the tower snapped into. Work together to fill in an equation to show the total number of connecting cubes in the tower and the two parts that the tower snapped into.
- Take turns snapping the tower of 10 cubes and hiding one part.

How Many Cubes Are Hidden?

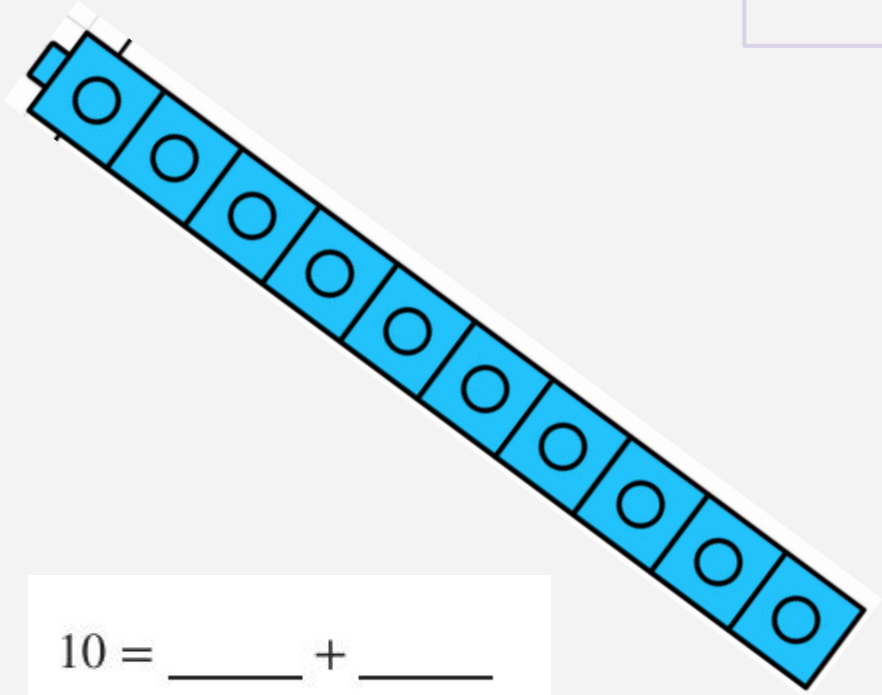
Activity #2

Han has a tower of 10 cubes.

He snaps it into 2 parts and hides 1 part behind his back.

He shows his partner 4 cubes.

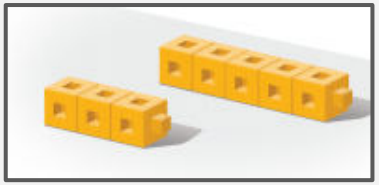
How many cubes is Han hiding?



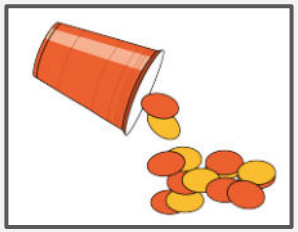
$10 = \_\_\_\_\_ + \_\_\_\_\_$

Activity #3

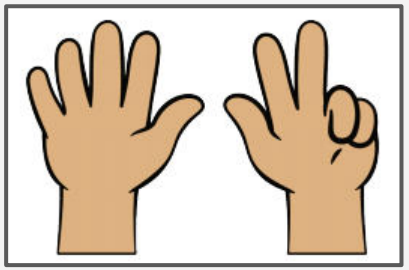
Centers: Choice Time



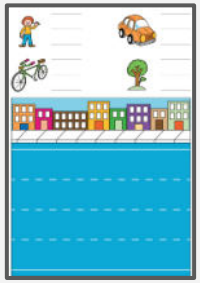
Snap the Cubes, How Many Are Missing?



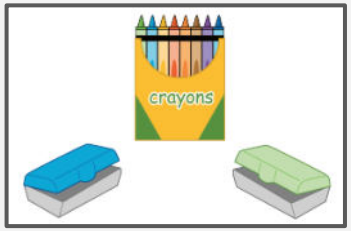
Shake and Spill



Math Fingers, Make 10

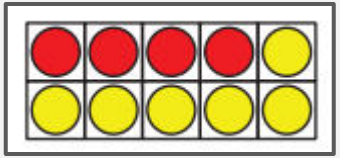


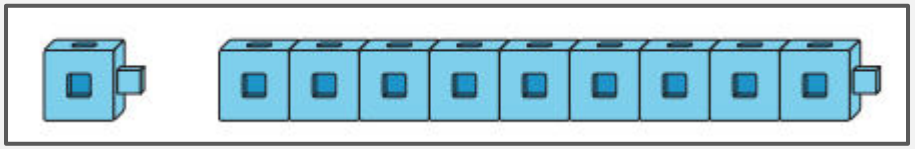
Math Libs, Draw 1-10

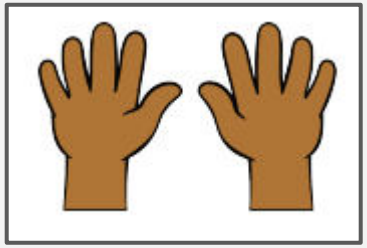


Math Stories, Both Addends Unknown

Lesson Synthesis







$$10 = 7 + 3$$

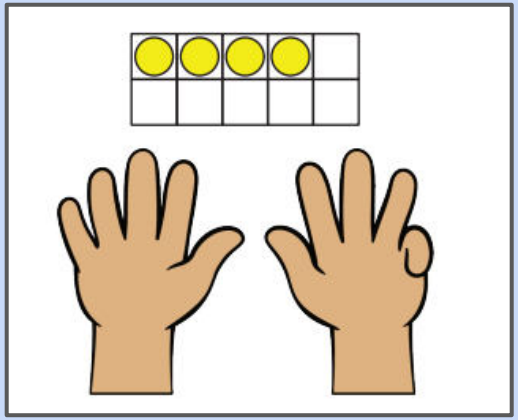
We have looked at lots of ways to make 10: 10-frames, fingers, expressions and equations, and towers of connecting cubes.

What is your favorite way to make 10? Why is it your favorite?

Section Summary

In this section, we found many different ways to make 10.

We used a 10-frame and our fingers to show numbers and figure out how many more are needed to make 10.



We used equations to show different ways to make 10.

$10 = 4 + 6$ $10 = 9 + 1$

17

Lots of Fruit

Let’s make up story problems and solve them.

K.OA.A.1, K.OA.A.2, K.OA.A.3

Warm up

Notice and Wonder: Fruit Stand

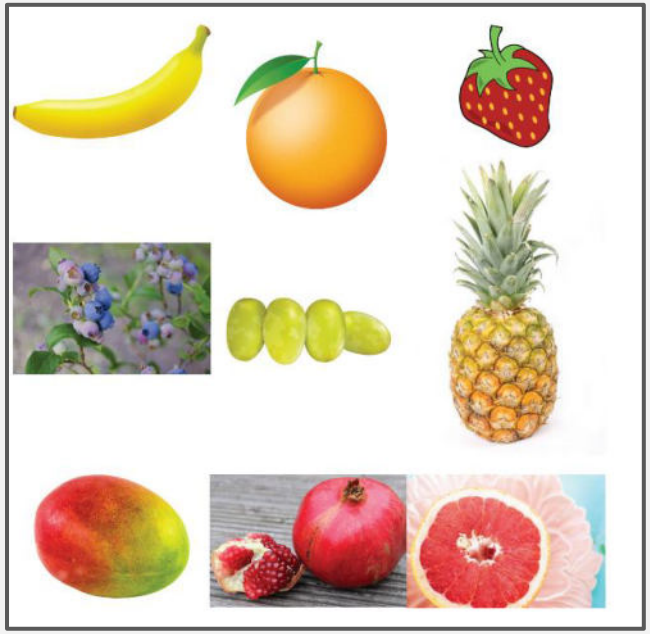
What do you notice?

What do you wonder?

Fruit Story Problems

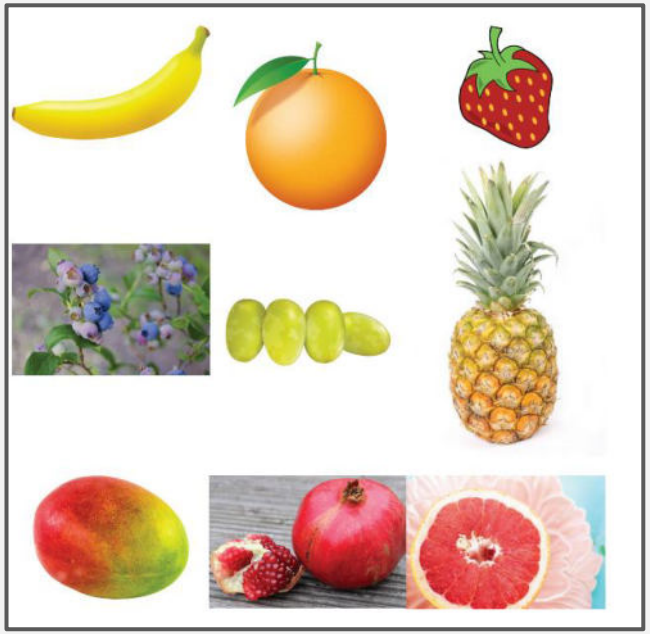
Activity #1

- I will roll the cube onto the fruit mat. This tells me which fruit to tell a story about.
- I will roll the cube onto the number mat. This tells me how many pieces of fruit I have altogether.
- You will tell a story problem about the fruit and the number that you roll. Remember that your story problem should have two questions at the end. You can write words or draw pictures to help you remember the story problem that you create.



All the Solutions

Activity #2



- Tell your new partner your story problem.
- What are you trying to figure out?
- Work with your partner to show as many possible solutions for the story problem.
- Show your thinking using drawings, numbers, words, or objects.

Lesson Synthesis

In the story problems, we saw that there were a lot of different solutions.

How can we organize our work to show that we have all the solutions?