

Unit 5

Make and Break Apart Numbers Within 10

Essential Questions

- 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?

You can read the Unit Story with your student by visiting the Unit Story page on the Caregiver Hub.



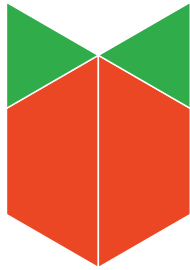
Unit Investigation

Lesson 1 is the Unit Investigation. Students interpret clues and use pattern blocks to build a mystery composition to build curiosity and apply their own knowledge in a variety of ways. Use the **Caregiver Connection** to help students continue to explore the math they will see in the unit.

Caregiver Connection

Students may enjoy exploring ways to compose and decompose shapes or quantities they find in their environment. Encourage them to describe how the shapes and amounts are composed using language such as *part*, *total*, *break apart*, or *put together*.

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.

Try This

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.

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.

Numbers can be broken apart in more than 1 way.

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



$$6 + 1$$



$$5 + 2$$

Try This



Show your thinking.

1

--	--	--	--	--

expression:

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

2

--	--	--	--	--

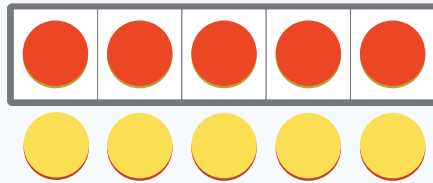
expression:

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

Directions:

1–2. 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.

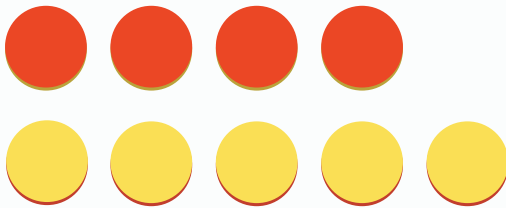
Equations can show a total number and the parts.



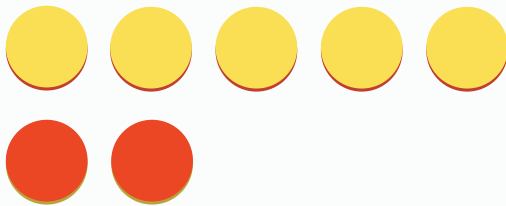
$$10 = 5 + 5$$

Try This

1 $9 = 6 + 3$



2 $7 = 5 + 2$



Directions:

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

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



$1 + 5$



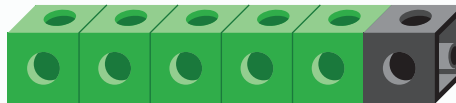
$2 + 4$



$3 + 3$

Try This

1

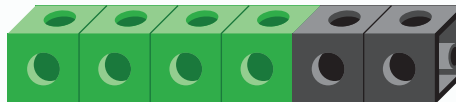


expression:

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

+

2



expression:

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

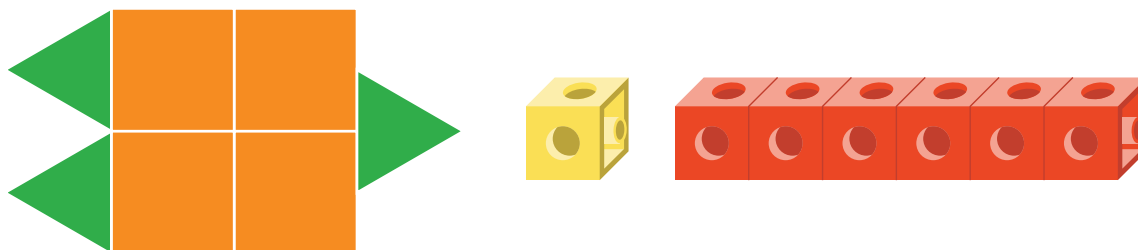
+

Directions:

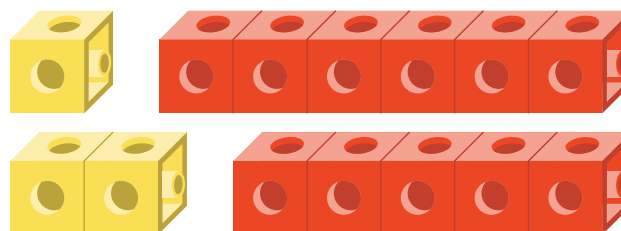
1–2. Write an expression to represent the 2 parts of the tower.

In this sub-unit . . .

- We put numbers together and broke numbers into parts.

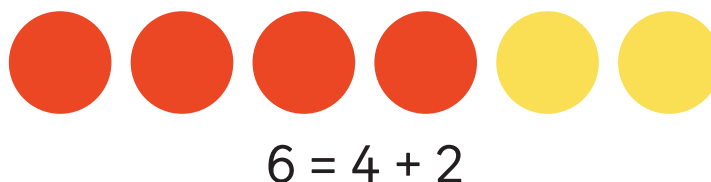


- We noticed that a number can be broken into parts in more than 1 way.



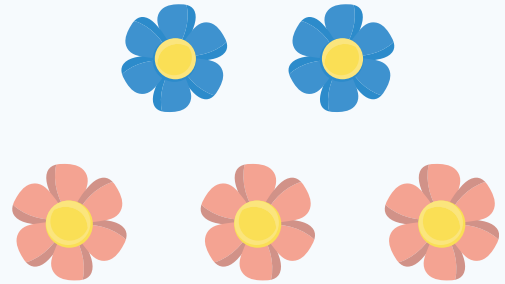
🔥 **Math tip:** We can look for and use patterns when breaking a number into parts.

- We saw that equations can show parts and the total number.



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.



Try This

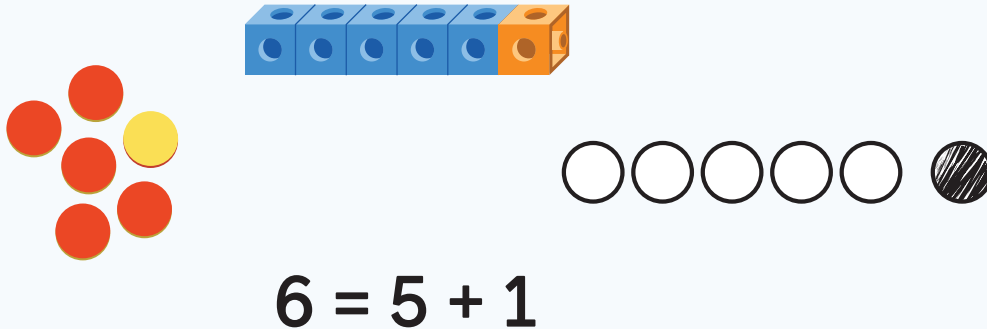
- 1 Priya noticed 9 insects in the grass. Some of the insects were ladybugs and some were bees.

 Show your thinking.

Directions:

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

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



Try This

- 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.

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?

				
2 standing	3 sitting		3 standing	2 sitting
$5 = 2 + 3$			$5 = 3 + 2$	

Try This

- 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 =		+	
6 =		+	

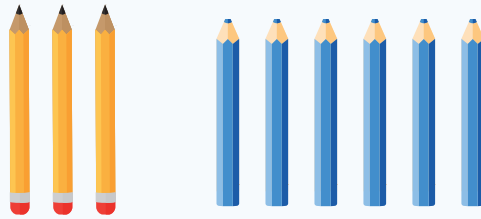
Directions:

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

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 pencils.
3 pencils were sharp and 6 pencils were dull.
How many pencils did Harry knock over?

$$9 = 3 + 6$$



Try This

- 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.

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 do not know how many are for chewing and how many are for climbing.



Try This

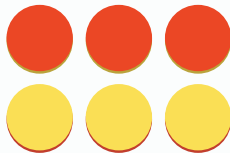
- 1 Diego has some coins.
3 of the coins are silver.
4 of the coins are gold.
How many coins does Diego have?



$$7 + 0 = 7$$



$$3 + 4 = 7$$



$$3 + 3 = 6$$



$$6 + 1 = 7$$

Directions:

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

In this sub-unit . . .

- We solved story problems in which we knew the total but did not know the parts.

Harry the Hamster knocked over 7 pencils. Some were sharp and some were dull.

How many pencils were sharp?

How many pencils were dull?

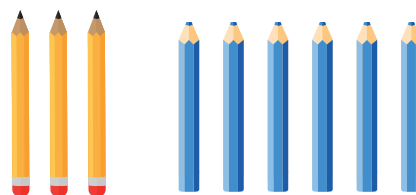


$$7 = \boxed{6} + \boxed{1}$$

🔥 **Math tip:** Labels can help you show the parts and total in a story problem.

- We solved story problems in which we knew the parts but did not know the total.

Harry the Hamster knocked over some pencils. 3 pencils were sharp and 6 pencils were dull. How many pencils did Harry knock over?

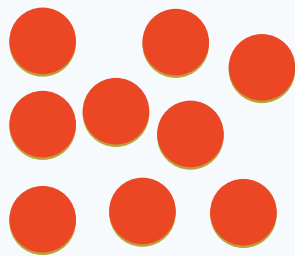


$$9 = 3 + 6$$

- We compared all the types of story problems we know.

In some story problems you start with something and add more, and in some story problems you put 2 parts together. An equation can show both of these types of story problems.

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

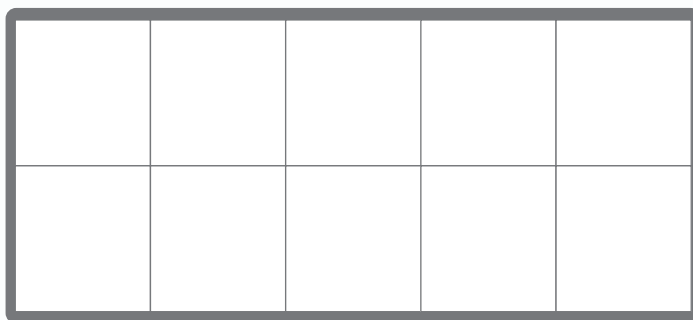


9



9

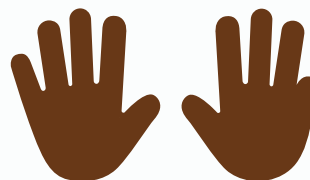
Try This



1



2

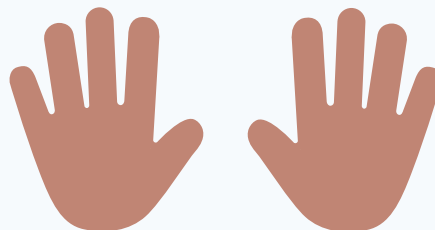
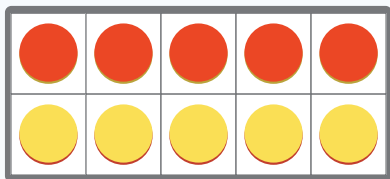


Directions:

1–2. For each set of fingers, use objects to show the same number on the 10-frame. Then write each number on the line.

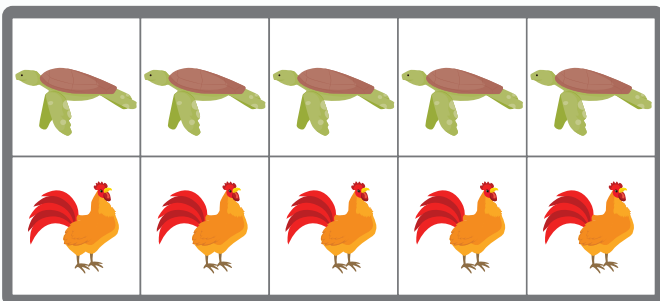
Equations, 10-frames, and fingers can all show ways to make and break apart 10.

$$10 = 5 + 5$$



Try This

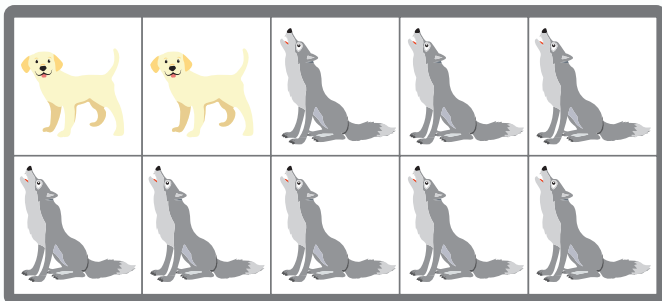
1



$$10 = 5 + 5$$

$$10 = 3 + 7$$

2



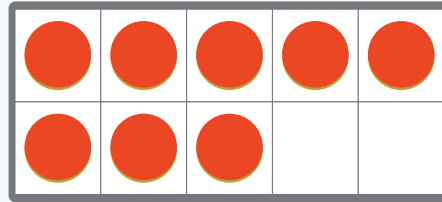
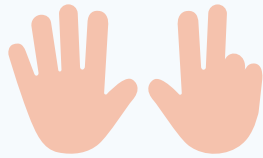
$$10 = 9 + 1$$

$$10 = 2 + 8$$

Directions:

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

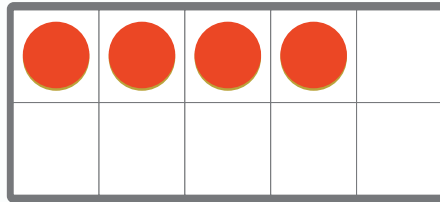
Fingers and 10-frames can help you figure out how many you need to make 10. Equations can show the parts that make 10.



$$10 = 8 + 2$$

Try This

1



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

2

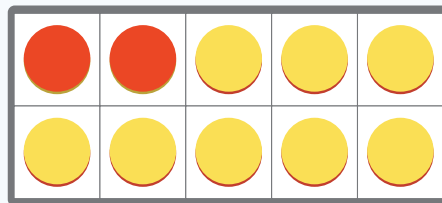


$$10 = \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array} + \begin{array}{c} \text{---} \\ \text{---} \\ \text{---} \end{array}$$

Directions:

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

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



$$10 = 2 + 8$$

$$10 = 8 + 2$$

Try This

1

2



10 =

2

8

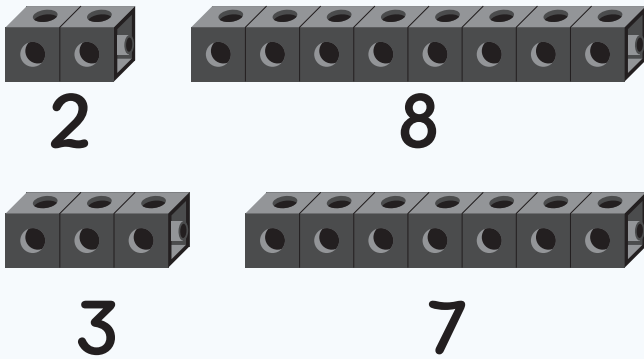


10 =

Directions:

1–2. 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.

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.

Try This

1



$$10 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

2



$$10 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

3



$$10 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

4



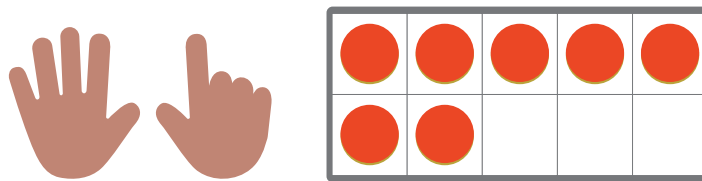
$$10 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

Directions:

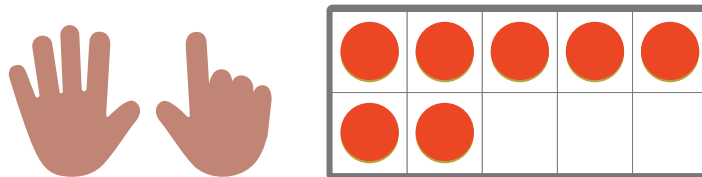
1–4. Fill in the equation to show the 2 parts that make 10.

In this sub-unit . . .

- We saw how tools, such as fingers and 10-frames, can help us compare a number to 5 or 10.



- We started with a number and figured out how many more we needed to make 10.



$$10 = 7 + 3$$

We need 3 more to make 10.

🔥 **Math tip:** Fingers and 10-frames can help us see how many more we need to make 10.

- We found many ways to make 10.



I found that 7 and 3 make 10. Then I found that 8 and 2 make 10.

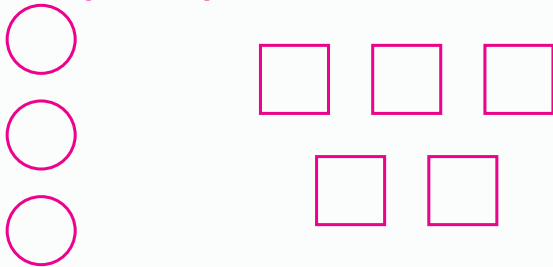
Try This | Answer Key

Lesson 2

1 Oral activity: No writing expected. Sample response shown.

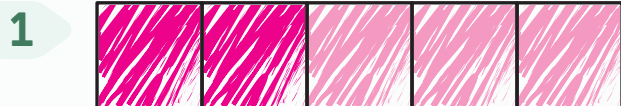
- I have 8 objects in all.
- The part on my paper has 3 objects.
- The part in my hand has 5 objects

2 Sample response shown.

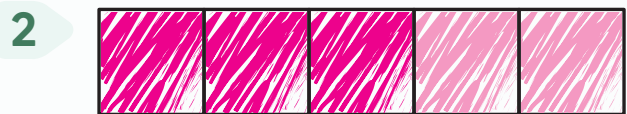


Lesson 3

Sample responses shown.

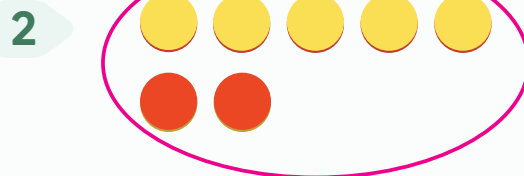
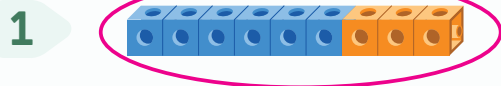


$$\underline{2} + \underline{3}$$



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

Lesson 4



Lesson 5

1

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

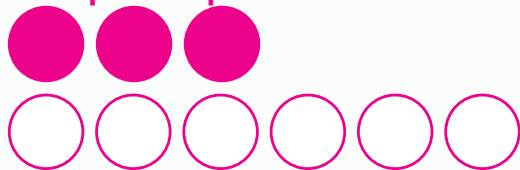
2

$$\underline{4} + \underline{2}$$

Try This | Answer Key

Lesson 6

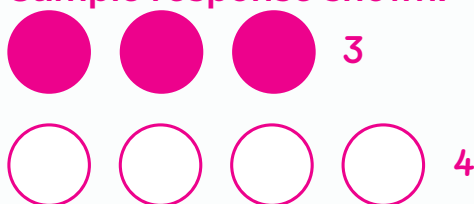
1 Sample response shown.



3 and 6 is 9.

Lesson 7

1 Sample response shown.



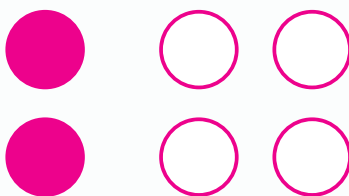
He has 3 orange and 4 blue.

Lesson 8

1 Sample response shown.



$$6 = \underline{1} + \underline{5}$$



$$6 = \underline{2} + \underline{4}$$

Lesson 9

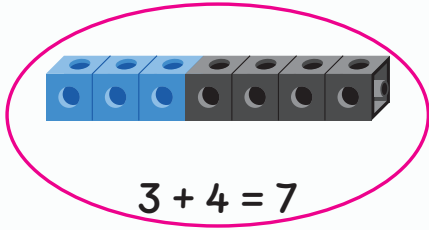
1 Sample work and equation shown.



$$6 + 3 = 9$$

Lesson 10

1



Lesson 11

1



2



Lesson 12

1

$$10 = 5 + 5$$

2

$$10 = 2 + 8$$

Lesson 13

Sample equations shown.

1

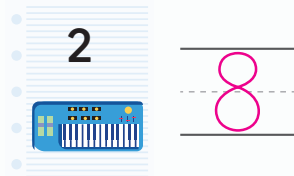
$$10 = 4 + 6$$

2

$$10 = 1 + 9$$

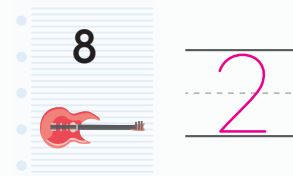
Lesson 14

1



$$10 = 2 + 8$$

2



$$10 = 8 + 2$$

Lesson 15

1

$$10 = 1 + 9$$

2

$$10 = 2 + 8$$

3

$$10 = 3 + 7$$

4

$$10 = 4 + 6$$