Unit 4

Understanding Addition and Subtraction

Essential Questions

- What does it mean to add and subtract?
- How can we show and solve story problems about adding and subtracting?
- How do expressions show adding and subtracting?

Unit Story: Casey's Town

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 connect literacy and math by asking and answering mathematical questions about the Unit Story 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.

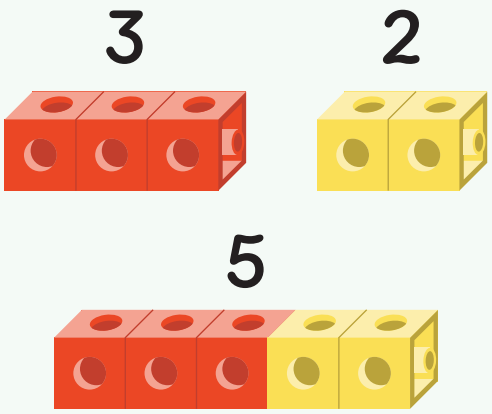
Caregiver Connection

Students may enjoy asking mathematical questions when observing people work and help in their own community. You can ask:

- "What math do you see?"
- "What mathematical questions can you ask about what you see?"

Summary | Lesson 2

You can put 2 groups together to find the **total**.



Try This

1 Priya 5 Diego 4 total ____

2 Priya 4 Diego 1 total ____

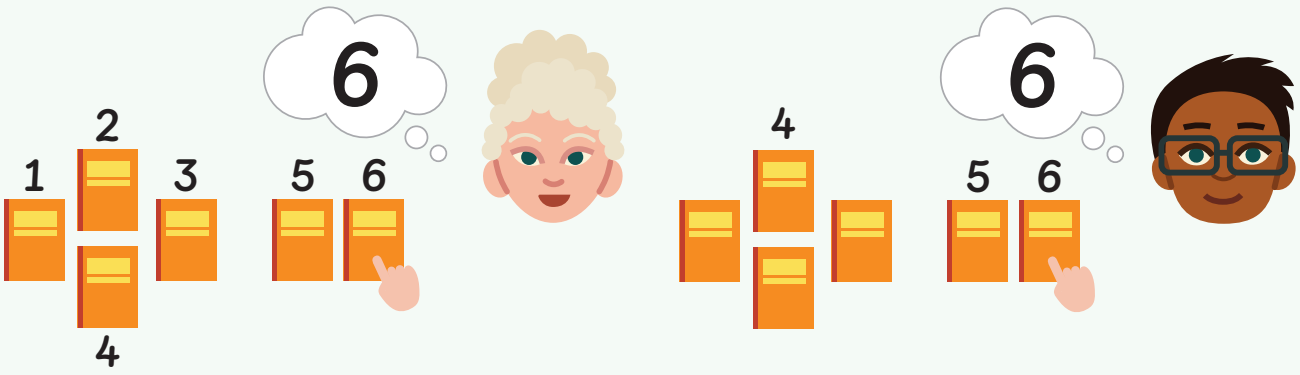
3 Priya 3 Diego 3 total ____

Directions:

1–3. Priya and Diego are working with connecting cubes. Use objects to show how many cubes Priya and Diego have. Then find the total and write the number on the line.

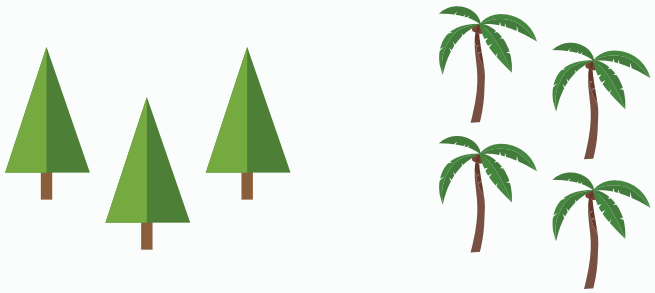
Summary | Lesson 3

You can count all the objects or count on to figure out the total of 2 groups of pictures.

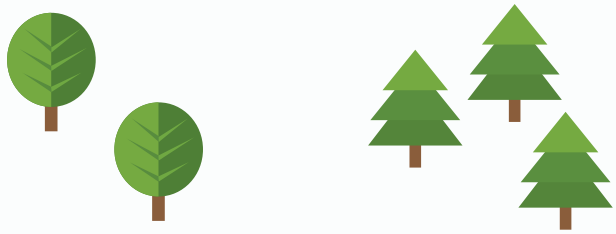


Try This

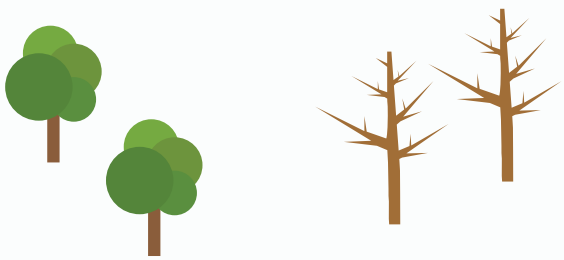
1



2



3

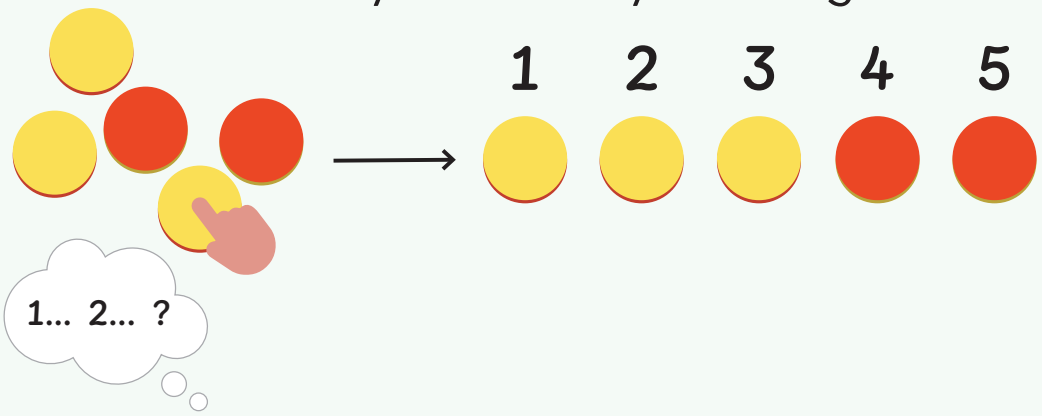


Directions:

1–3. Figure out the total number of trees. Write the total on the line.

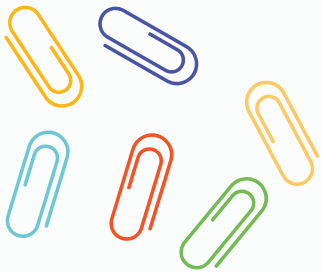
Summary | Lesson 4

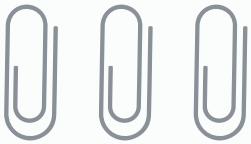
You can figure out the total number of objects or pictures more clearly when they are organized.



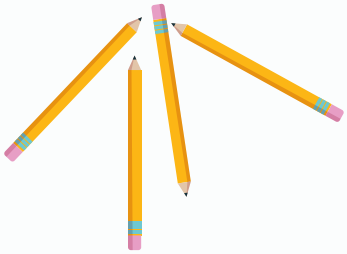
Try This

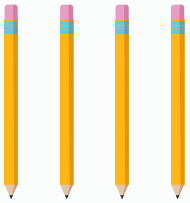
1



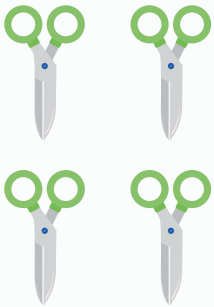


2





3

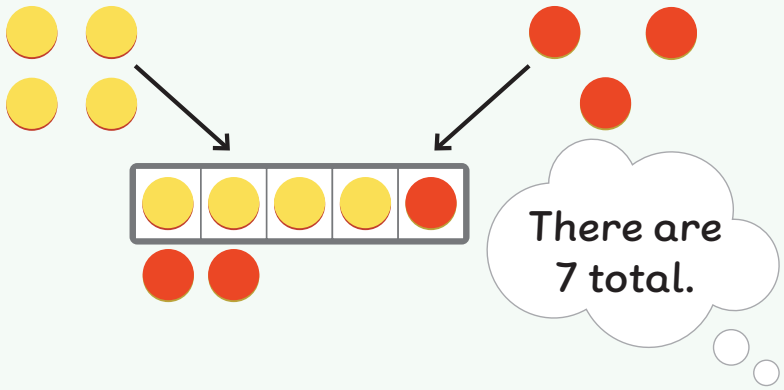


Directions:

1–3. Figure out the total number of objects. Write the total on the line.

Summary | Lesson 5

Adding is putting groups together to figure out the total.



Try This

1 Count out 5 objects.
Add 2 more objects.

There are _____ objects in total.

2 Count out 6 objects.
Add 3 more objects.

There are _____ objects in total.

Directions:

1–2. Write a number that shows how many objects you have in total.

Summary | Lesson 6

Subtracting is taking some away from a group and figuring out how many are left.

Try This

1 Count out 7 objects.
Take away 4 objects.

There are _____ objects left.

2 Count out 10 objects.
Take away 6 objects.

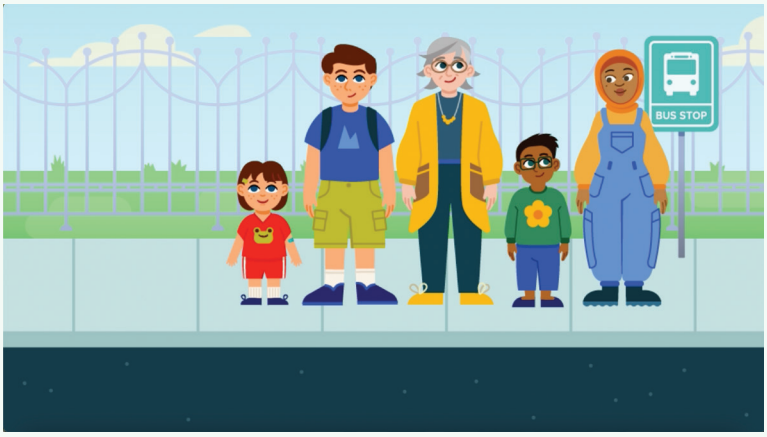
There are _____ objects left.

Directions:

1–2. Write a number that shows how many objects you have left.

Summary | Lesson 7

Math happens all around us in the world. Adding happens when an amount is added to a group. Subtracting happens when an amount is taken away from a group.



Try This

1

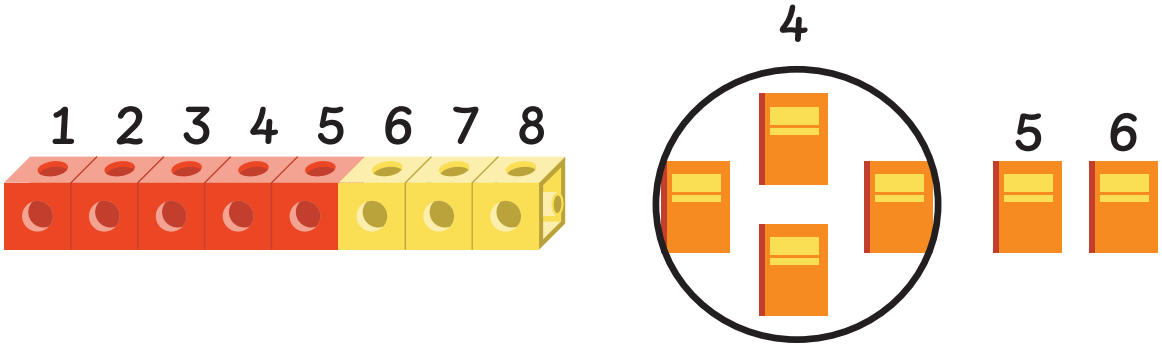
There will be _____ buses in total.

Directions:

1. Write a number to show how many buses there will be in total.

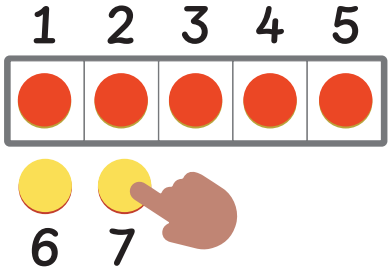
In this sub-unit . . .

- We counted 2 groups of objects or images.

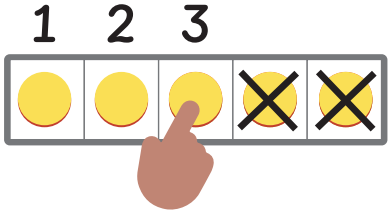


Math tip: When you know how many are in 1 group, you can say that number and count on to the next group.

- We used counters to add.

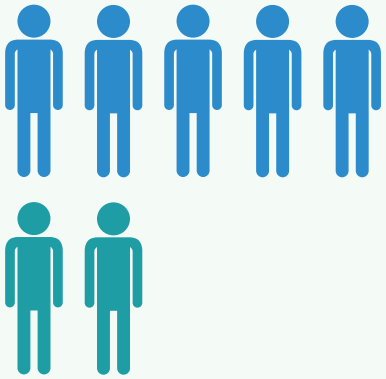


- We used counters to subtract.



Summary | Lesson 8

Acting out a math story can help you figure out what is happening.

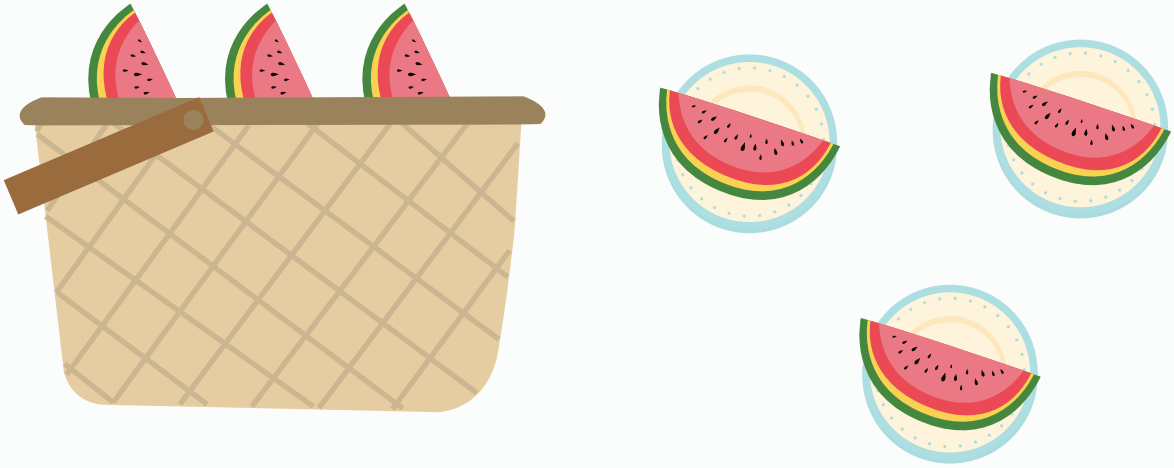


5 customers were waiting in line. Then 2 more customers joined the line.

Try This

1

2

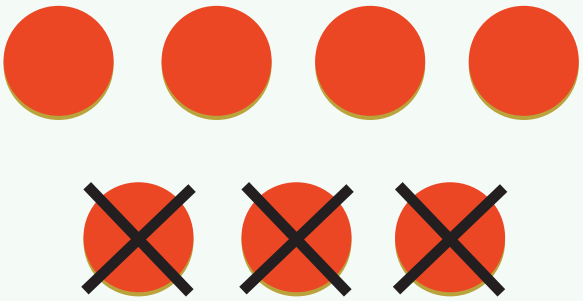


Directions:

1–2. Tell a story that uses numbers to describe what is happening in the picture.

Summary | Lesson 9

You can use objects to show what is happening in a math story.



There were
7 bananas on the shelf.
Then a customer took
3 bananas away.

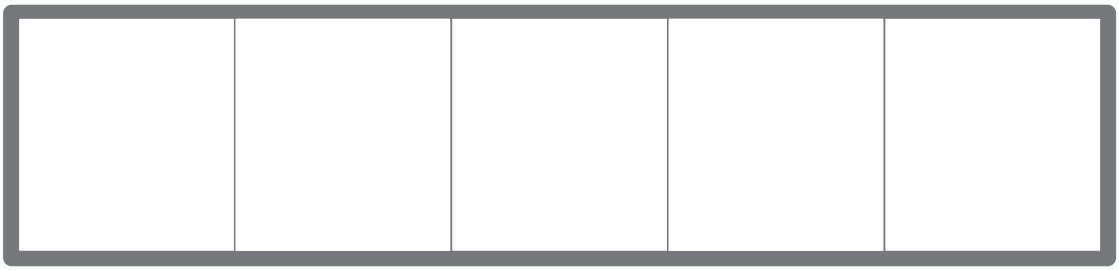
Try This

1 There were 7 apples on the table.

3 of the apples fell off the table.

2 There were 6 squirrels in the tree.

4 more squirrels joined them.

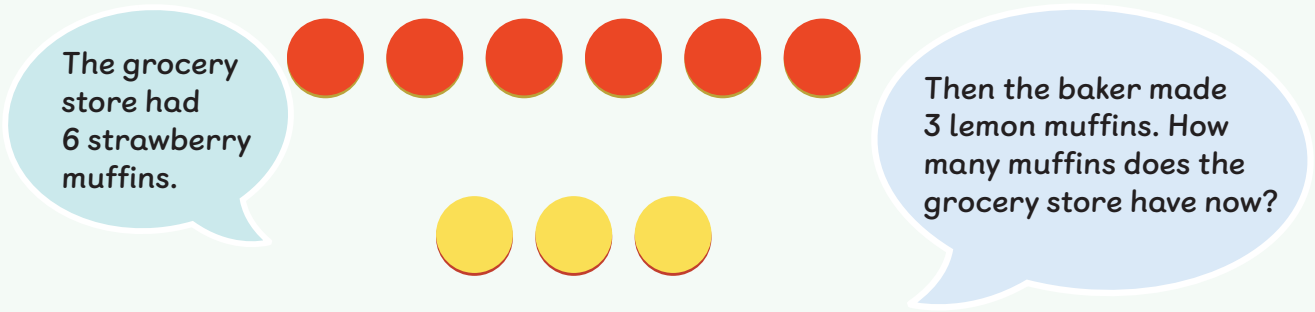


Directions:

1–2. Use objects to show what is happening in the story. Use the 5-frame if it is helpful.

Summary | Lesson 10

Retelling and showing each part of a story problem can help you understand what is happening and solve the story problem.



Try This

1 There were 4 people riding the bus.
At the bus stop, 5 more people got on the bus.
How many people are on the bus now?

Show your thinking.

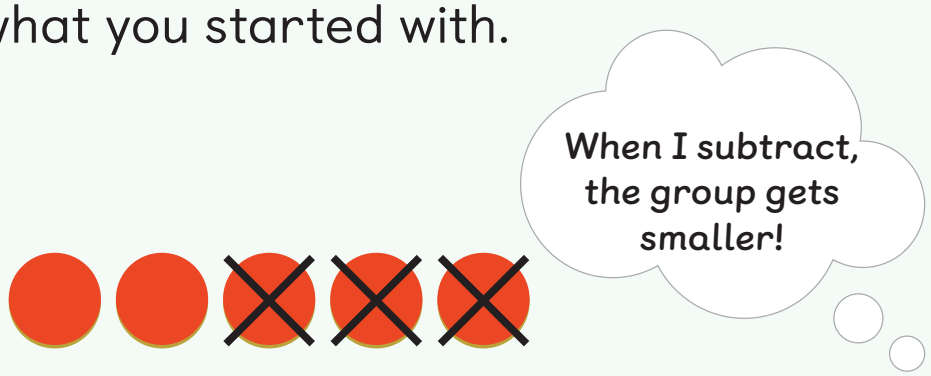
There are _____ people.

Directions:

1. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Write your answer on the line.

Summary | Lesson 11

When you add, the answer is *more* than what you started with. When you subtract, the answer is *less* than what you started with.



Try This

1 Clare saw 7 butterflies in the garden.
Then 3 of the butterflies flew away.
How many butterflies are left in the garden?

Show your thinking.

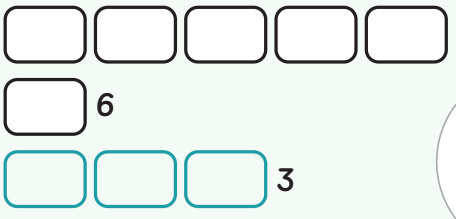
There are _____ butterflies.

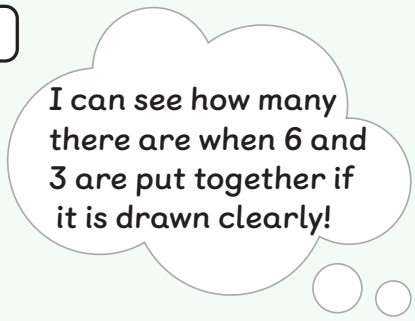
Directions:

1. Solve the story problem. Show your thinking using objects, drawings, numbers, or words. Write your answer on the line.

Summary | Lesson 12

When drawings of a story problem are simple and organized, it can help you understand what is happening in the story problem.





Try This

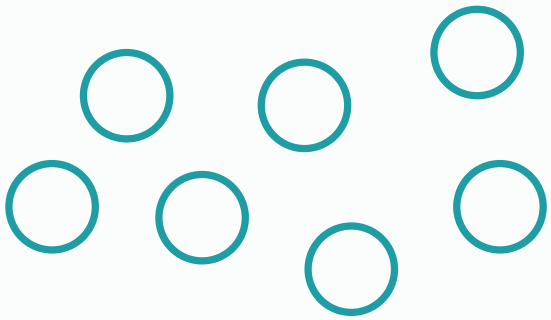
1 Jada had 2 rocks.

She found 5 more rocks.

How many rocks does Jada have now?

Student A

Student B



Directions:

1. Circle the drawing that clearly shows what is happening in the story problem.

Summary | Lesson 13

Drawings can help us solve story problems. Sometimes, a drawing shows there is nothing left. You can use the number **zero** to say there is nothing.

0

Try This

1 Priya had 9 apple slices.

She ate 6 apple slices.

How many apple slices does she have left?

Show your thinking.

Priya has _____ apple slices.

Directions:

1. Solve the story problem. Show your thinking using a drawing and write your answer on the line.

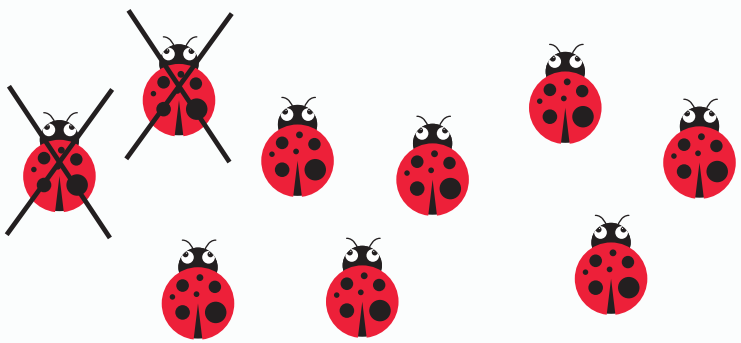
Summary | Lesson 14

You can create a story problem by thinking of a math story that has numbers, describing what happens or changes, and asking a question.

There were 3 bags of trash in the sanitation worker's truck.
Then the sanitation worker put 2 more bags in the truck.
How many bags are in the truck now?

Try This

1



Show your thinking.

_____

_____

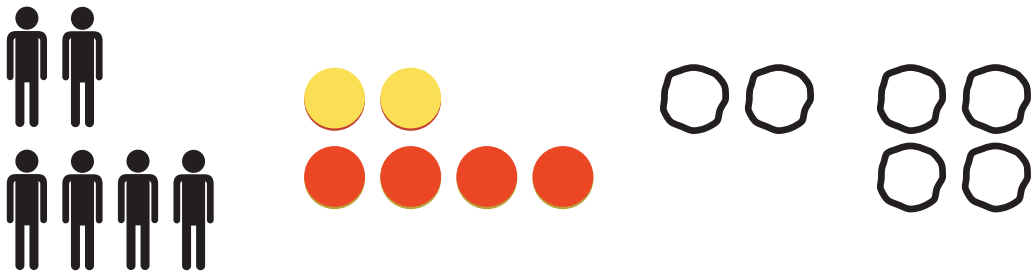
Directions:

1. Use the picture to tell your own story problem. Then solve the story problem. Show your thinking using a drawing and write your answer on the line.

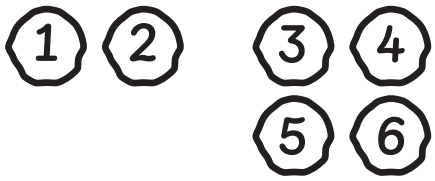
In this sub-unit . . .

- We represented story problems by acting them out, using objects, and drawing pictures.

  There were 2 people in line and 4 more joined. How many people are in line now?



- We solved story problems.



  There are 6 people in line now. 2 and 4 is 6.

  Math tip: If there are no objects, we can say there are 0 objects.

- We created story problems.

  There were 5 shopping carts. 3 shopping carts were taken. How many shopping carts are left?

Summary | Lesson 15

When you write an **expression**, you use symbols. A plus sign is a symbol you can use for adding. A minus sign is a symbol you can use for subtracting.

plus	minus
+	−

Try This

1 There were 2 birds in the nest.
4 more birds returned to the nest.
How many birds are in the nest now?

Show your thinking.

There are _____ birds.

Directions:

1. Solve the story problem. Show what happened in the story problem in as many different ways as you can. Then write your answer on the line.

Summary | Lesson 16

An expression that matches a story problem uses the same numbers and uses a plus sign or a minus sign to show what happened in the story.

The park ranger collected 5 leaves in the morning. Then the park ranger collected 5 more leaves in the afternoon. How many leaves did the park ranger collect in all?

$5 + 5$

Try This

1 There were 9 pretzels on the table.
Priya put 5 of the pretzels in her lunch box.
How many pretzels are on the table now?

$9 - 5$ $4 + 5$ $9 + 2$

2 Shawn saw 6 birds in a tree.
Then 4 more birds flew into the tree.
How many birds does Shawn see in the tree now?

$8 - 3$ $6 + 4$ $6 - 4$

Directions:

1–2. Circle the expression that shows what happened in the story problem. You can use objects or draw a picture to help you.

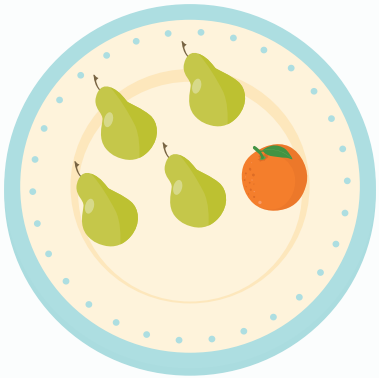
Summary | Lesson 17

You can draw to show what is happening in an expression, and you can write an expression to show what is happening in a drawing.

5 – 3

Try This

1

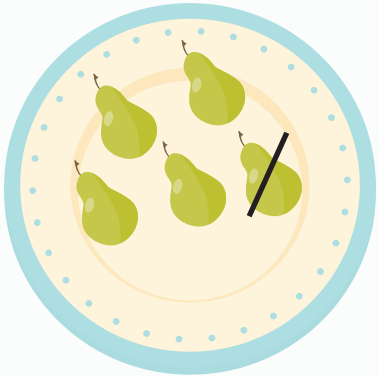


_____ _____

_____ + _____

_____ _____

2



_____ _____

_____ – _____

_____ _____

Directions:

1–2. Tell a story about the picture. Write numbers to fill in the expression.

Summary | Lesson 18

Changing the symbol can change the value of an expression.

$4 + 1$ 

$4 - 1$ 

Try This

1. $7 + 1$ _____

2. $8 - 3$ _____

3. $5 - 2$ _____

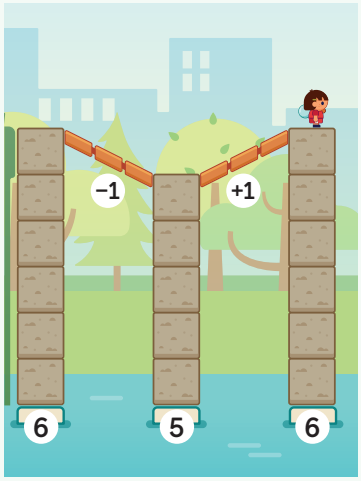
Workspace

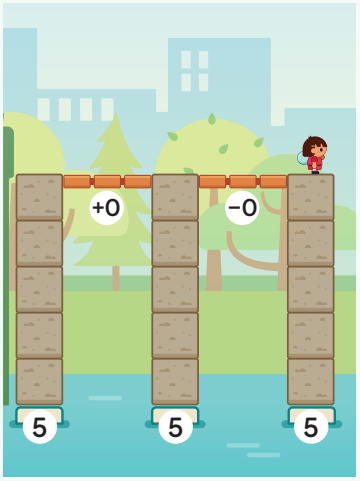
Directions:

1–3. Find the value of the expression. Write your answer on the line. Use the workspace if it is helpful.

Summary | Lesson 19

When 0 is added to or subtracted from a number, the number stays the same. When 1 is added to a number, the answer is 1 more. When 1 is subtracted from a number, the answer is 1 less.





Try This

1

Expression	Value
9 − 1	4
9 − 0	3
4 − 1	9
4 − 0	8

Directions:

1. Draw lines to match each expression with its value.

Summary | Lesson 20

Story problems can show expressions and expressions can show story problems.

$4 + 5$

There were 4 people at the park.
5 more people came to the park later.
How many people are at the park in total?

Try This

1 Jada was collecting sticks in the park.
She found 5 sticks.
Then she found 4 more sticks.

How many sticks does Jada have now?

Show your thinking.

Jada had _____ sticks

$5 + 4$ $5 - 4$

Directions:

1. Solve the story problem and write your answer on the line. Use drawings, numbers, or words to show your thinking. Circle the expression that matches your thinking.

Sub-Unit 3 | Summary

In this sub-unit . . .

- We saw that expressions can show adding or subtracting.

6 + 3

6 − 3

- We found the values of expressions.

3 + 1 = 4

6 − 3 = 3

Math tip: The plus sign shows adding and the minus sign shows subtracting.

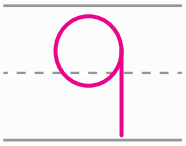
- We wrote an expression to show what happened in a story problem.

There were 9 deer in the park. 6 deer ran away. How many deer were left?

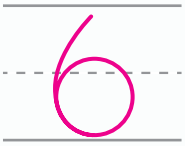
9 − 6

Try This | Answer Key

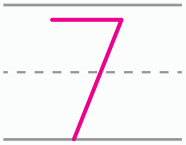
Lesson 2

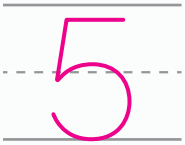
1 

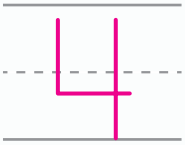
2 

3 

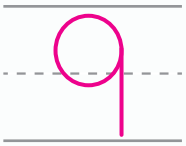
Lesson 3

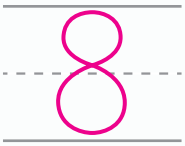
1 

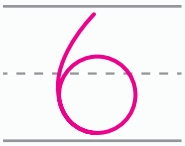
2 

3 

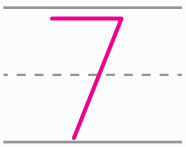
Lesson 4

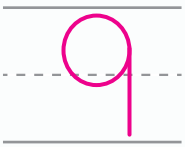
1 

2 

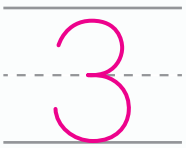
3 

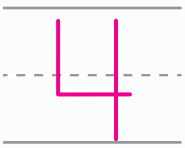
Lesson 5

1 

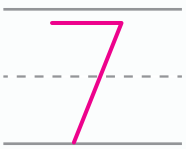
2 

Lesson 6

1 

2 

Lesson 7

1 

Lesson 8

Oral activity: No writing expected. Sample responses shown.

1 There were 3 people on the bus. 2 more people got on the bus. Now there are 5 people on the bus.

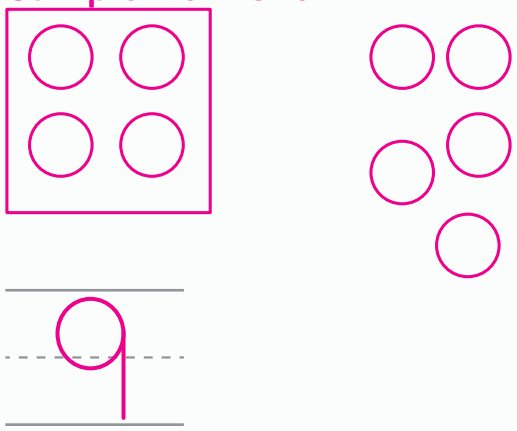
2 There are 3 watermelon slices in the basket and 3 outside the basket. There are 6 slices altogether.

Lesson 9

1–2 Oral activity: No writing expected.

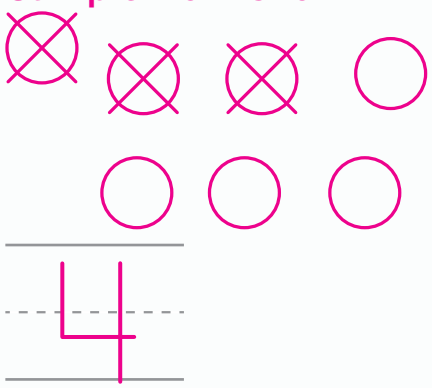
Lesson 10

1 Sample work shown.



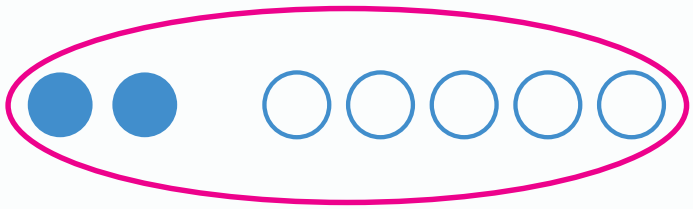
Lesson 11

1 Sample work shown.



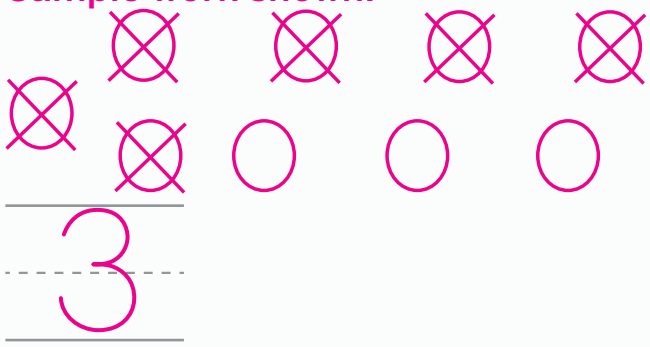
Lesson 12

1



Lesson 13

1 Sample work shown.



Lesson 14

1 Sample response shown.

7

Lesson 15

1 Sample work shown.

2 and 4 is 6.

6

Lesson 16

1 9 – 5

2 6 + 4

Lesson 17

1 4 + 1

2 5 – 1

Lesson 18

1 8

2 5

3 3

Sample work shown.

Lesson 19

1 9 − 1

9 − 0

4 − 1

4 − 0

4

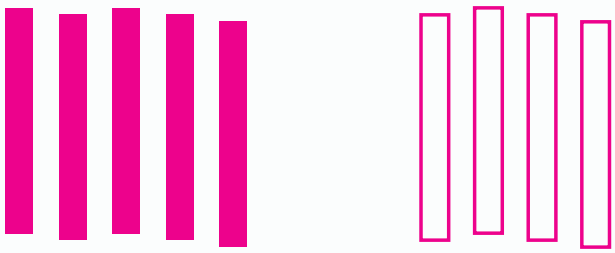
3

9

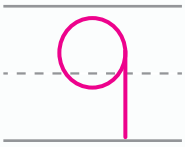
8

Lesson 20

1 Sample work shown.



5 and 4 is 9.



5 + 4