Eureka Math

First Grade
Module 3
Lesson 03

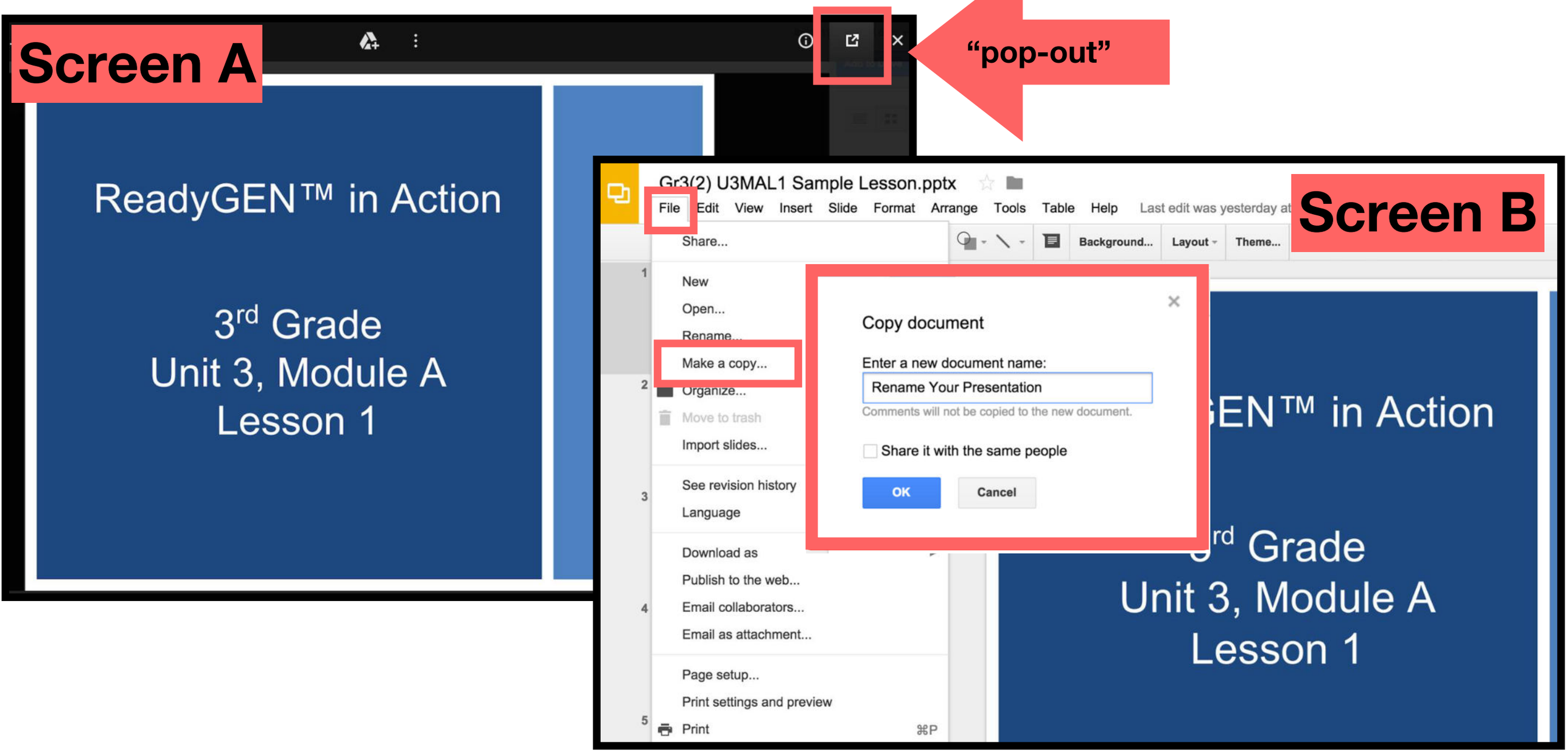
At the request of elementary teachers, a team of Bethel & Sumner educators met as a committee to create Eureka slideshow presentations. These presentations are not meant as a script, nor are they required to be used. Please customize as needed. Thank you to the many educators who contributed to this project!

Directions for customizing presentations are available on the next slide.

Customize this Slideshow

Reflecting your Teaching Style and Learning Needs of Your Students

- ➢ When the Google Slides presentation is opened, it will look like Screen A.
- ➢ Click on the “pop-out” button in the upper right hand corner to change the view.
- ➢ The view now looks like Screen B.
- ➢ Within Google Slides (not Chrome), choose FILE.
- ➢ Choose MAKE A COPY and rename your presentation.
- ➢ Google Slides will open your renamed presentation.
- ➢ It is now editable & housed in MY DRIVE.

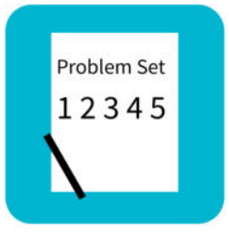


Icons

Read, Draw, Write

Learning Target

Personal White Board

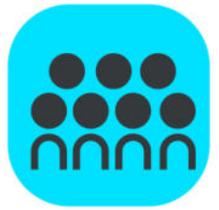


Problem Set

Manipulatives Needed

Fluency

Think Pair Share



Whole Class

Individual

Partner

Small Group

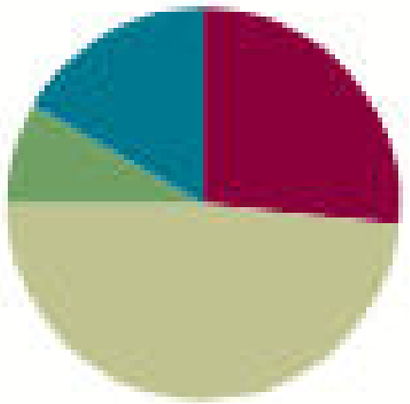
Small Group Time

Lesson 3

Objective: Order three lengths using indirect comparison.

Suggested Lesson Structure

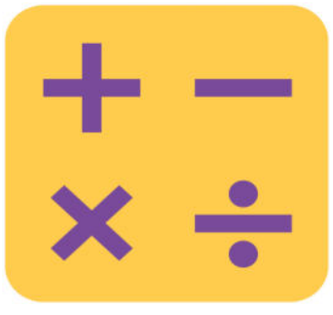
Fluency Practice	(16 minutes)
Application Problem	(5 minutes)
Concept Development	(29 minutes)
Student Debrief	(10 minutes)
Total Time	**(60 minutes)**



Materials Needed

- (T) 20-bead or 100-bead Rekenrek
- (S) Adding and Subtracting Teen Numbers and Ones Sprint
- (T) Masking tape (two colors, if possible)
- (T) Piece of string or yarn approximately 6–10 feet long (depending on dimensions of the classroom—the string should reach from the door to the middle of the classroom)
- (T) Projector
- (T) City blocks grid (Template)
- (S) Personal white board with city blocks grid (Template)

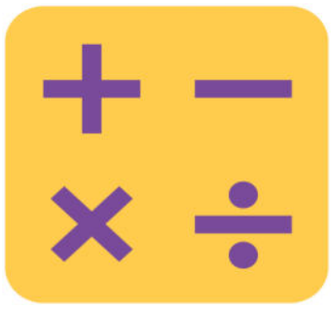
I can order three lengths using indirect comparison.



Beep Counting

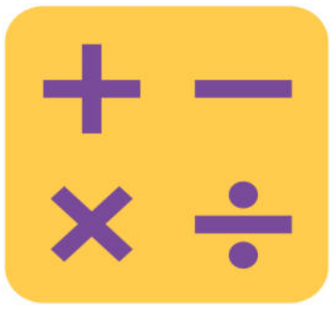
I am going to say three or more numbers and replace one of the numbers with the word *beep*. You will say the number that was replaced by the *beep*!

Ready? Here are your first numbers...



Rekenrek Addition and Subtraction

Say the number.



Rekenrek Addition and Subtraction

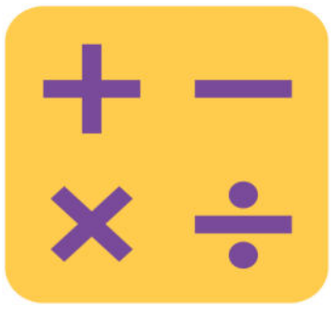
Say the number.

That’s right! 14 is the number.

Rekenrek Addition and Subtraction

14

Now say it the Say Ten way.

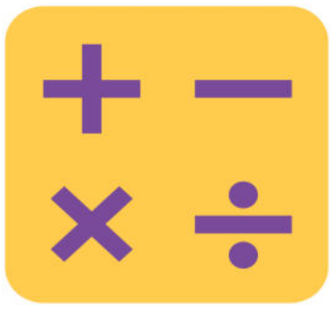


Rekenrek Addition and Subtraction

14

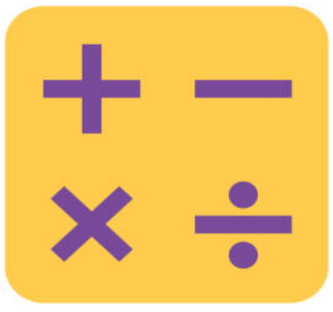
Now say it the Say Ten way.

Good! It is Ten 4.



Rekenrek Addition and Subtraction

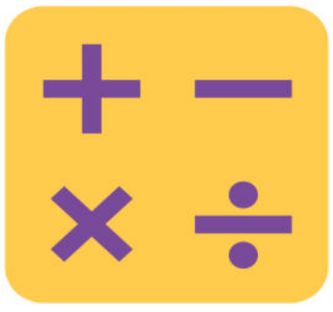
What will the number be if I take out ten?



Rekenrek Addition and Subtraction

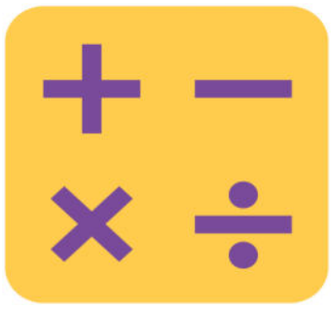
What will the number be if I take out ten?

Yes! It will be 4.



Rekenrek Addition and Subtraction

Let’s check.



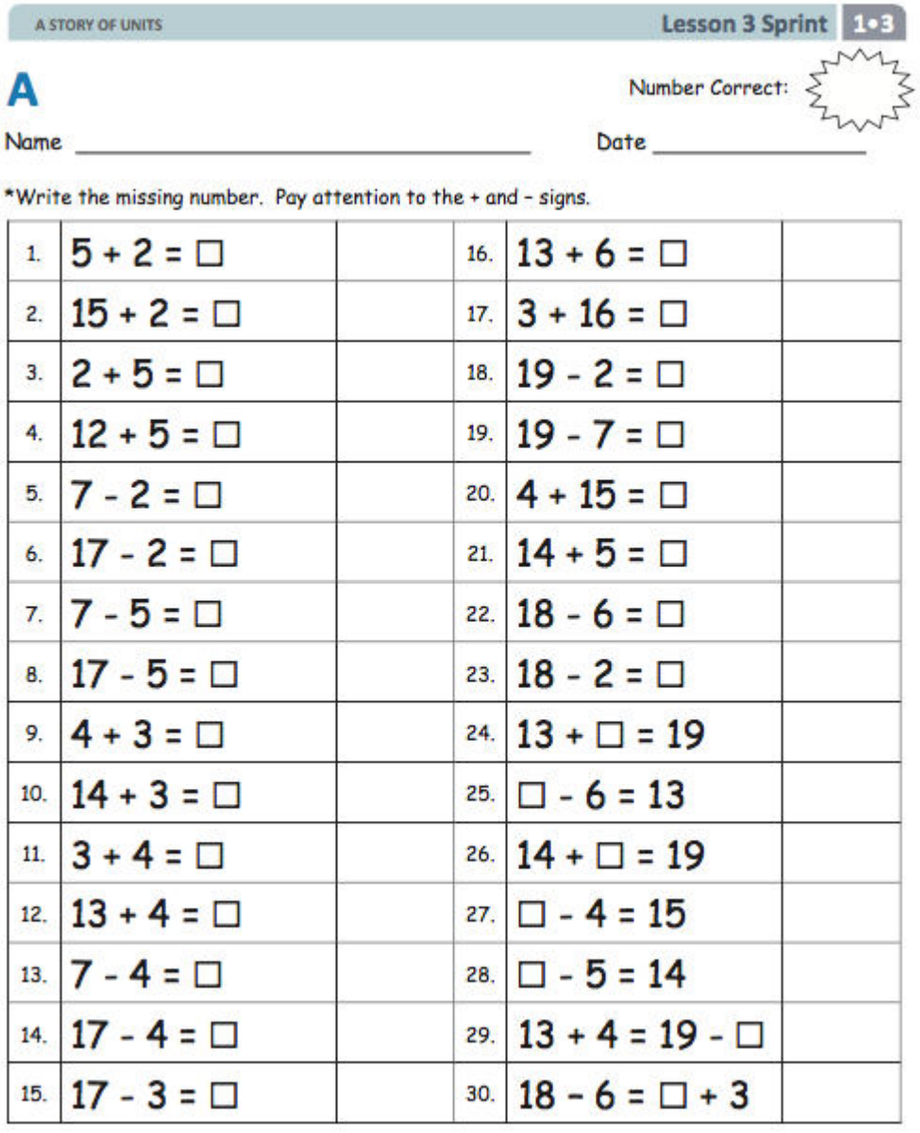
Rekenrek Addition and Subtraction

Let’s check.

We are correct!

Sprint: Adding and Subtracting Teen Numbers and Ones

Time for a sprint!



A STORY OF UNITS — Lesson 3 Sprint 1•3

A

Number Correct: ____

Name _____ Date _____

*Write the missing number. Pay attention to the + and – signs.

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

Sprint: Adding and Subtracting Teen Numbers and Ones

Time for a sprint!

B

Number Correct:

Name _____ Date _____

*Write the missing number. Pay attention to the + and – signs.

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

Application Problem

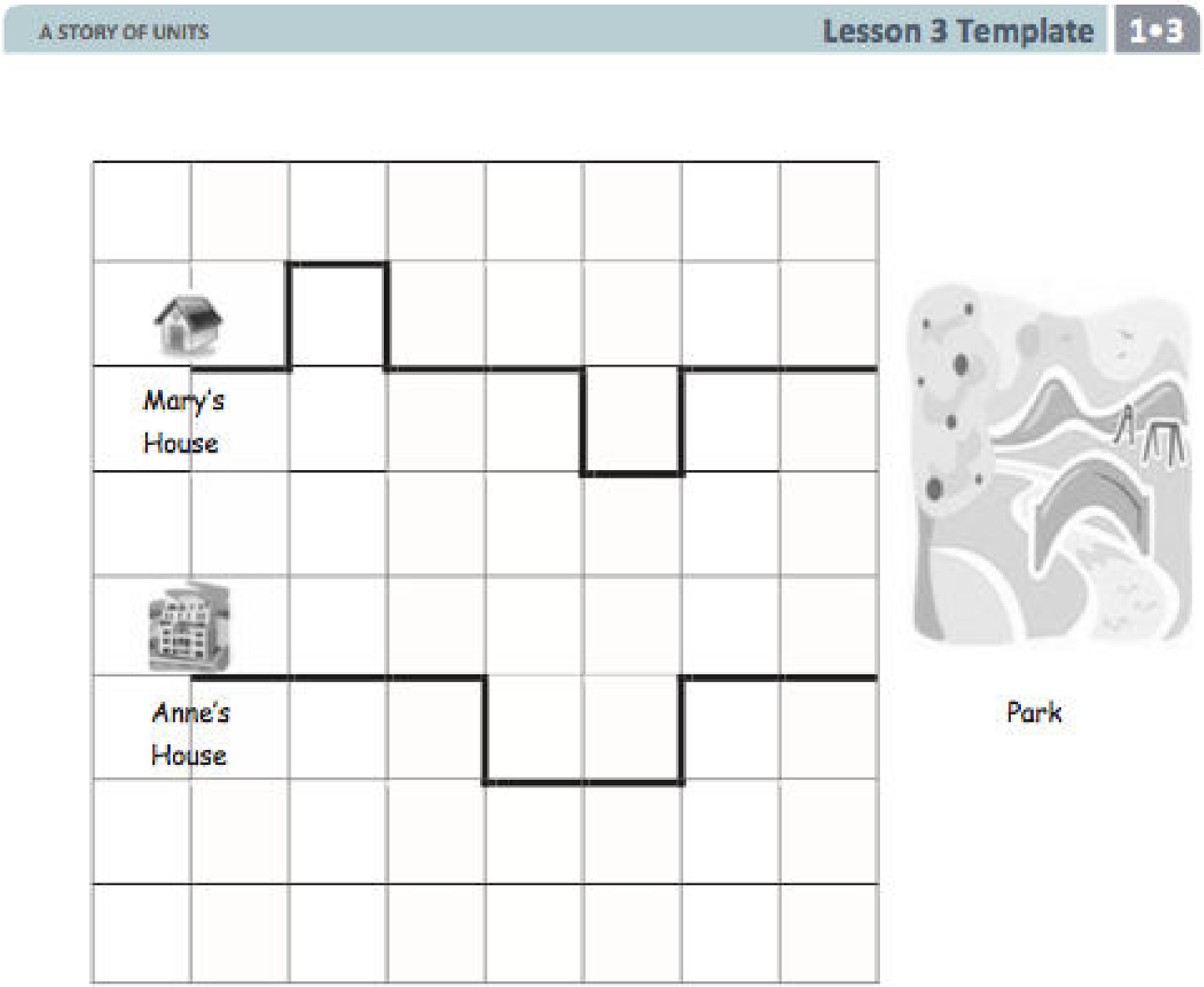
Draw one picture to match both of these sentences:

The book is longer than the index card. The book is shorter than the folder.

Which is longer, the index card or the folder? Write a statement comparing the two objects. Use your drawings to help you answer the question.

Concept Development

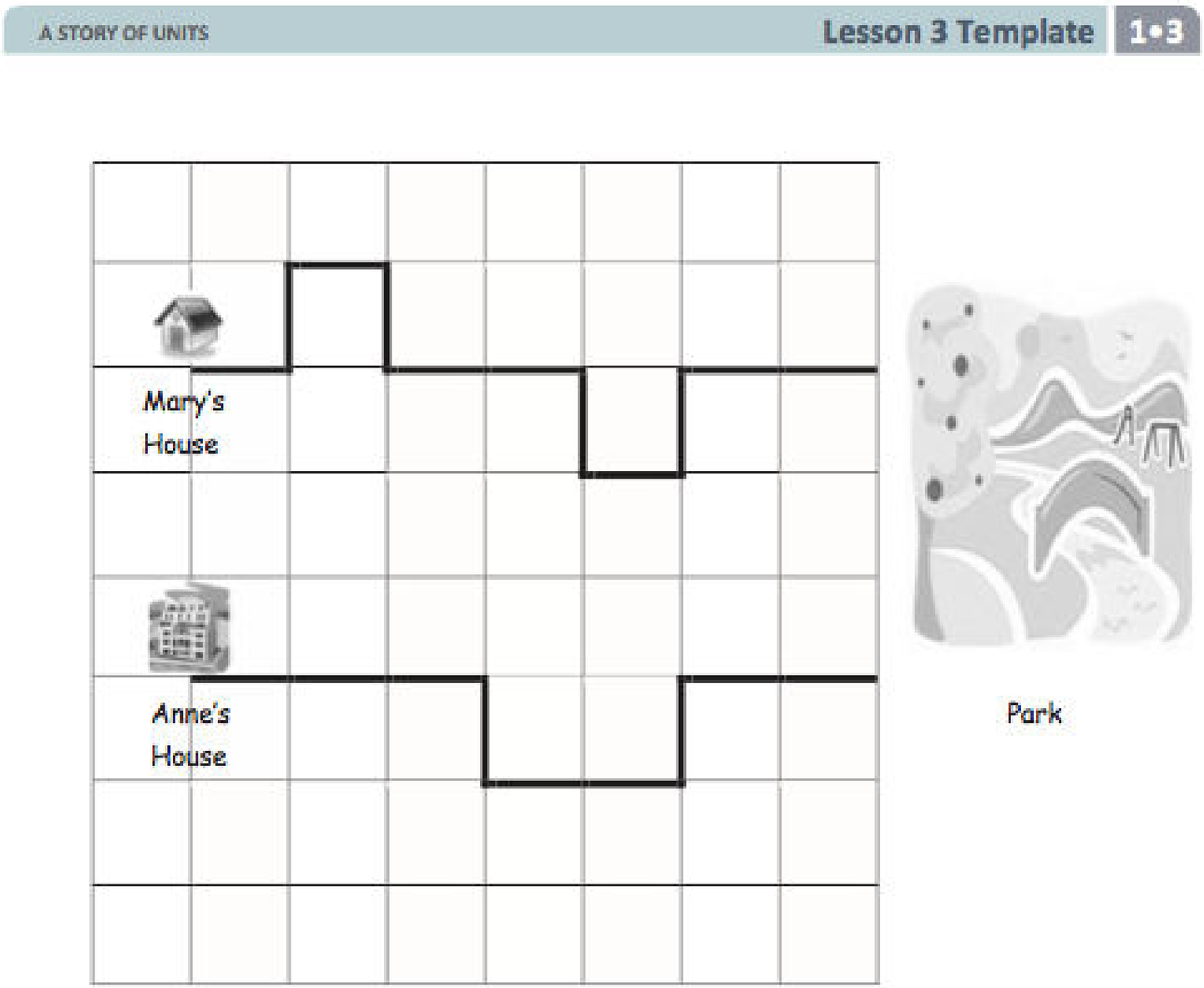
Mary and Anne are trying to figure out whose path to the park is longer. Here is a map showing Mary's path and Anne's path from each of their houses to the park. How can we figure out which path is longer?



Concept Development

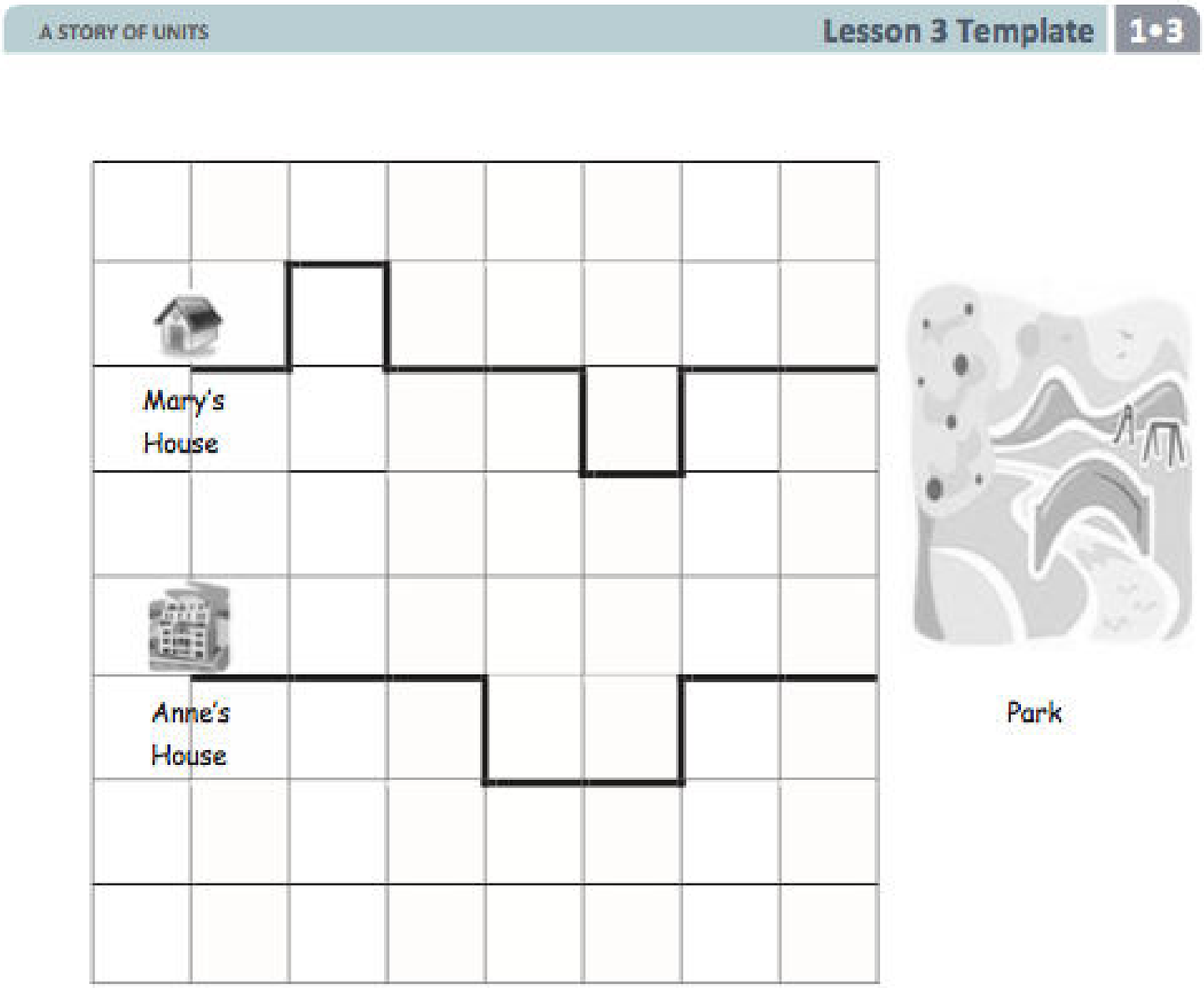
How can we figure out which path is longer?

I like how I heard some say we can look and see which one seems longer. We can also count the boxes from one endpoint to the other. Also, measure the paths with a string and compare. Count each line on the path.



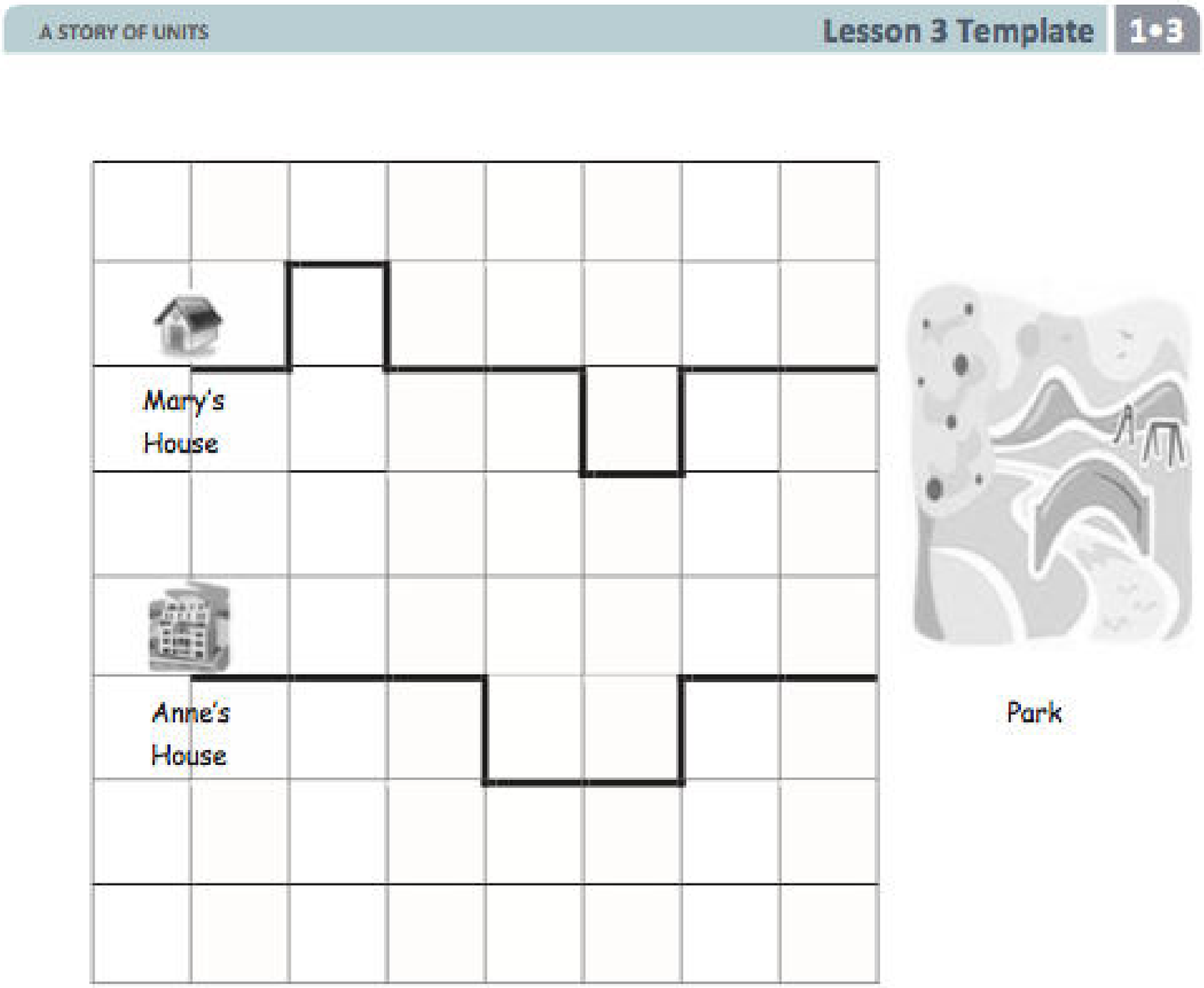
Concept Development

Yes! These lines are like city blocks. When you trace from one line to the other line, that's a city block.



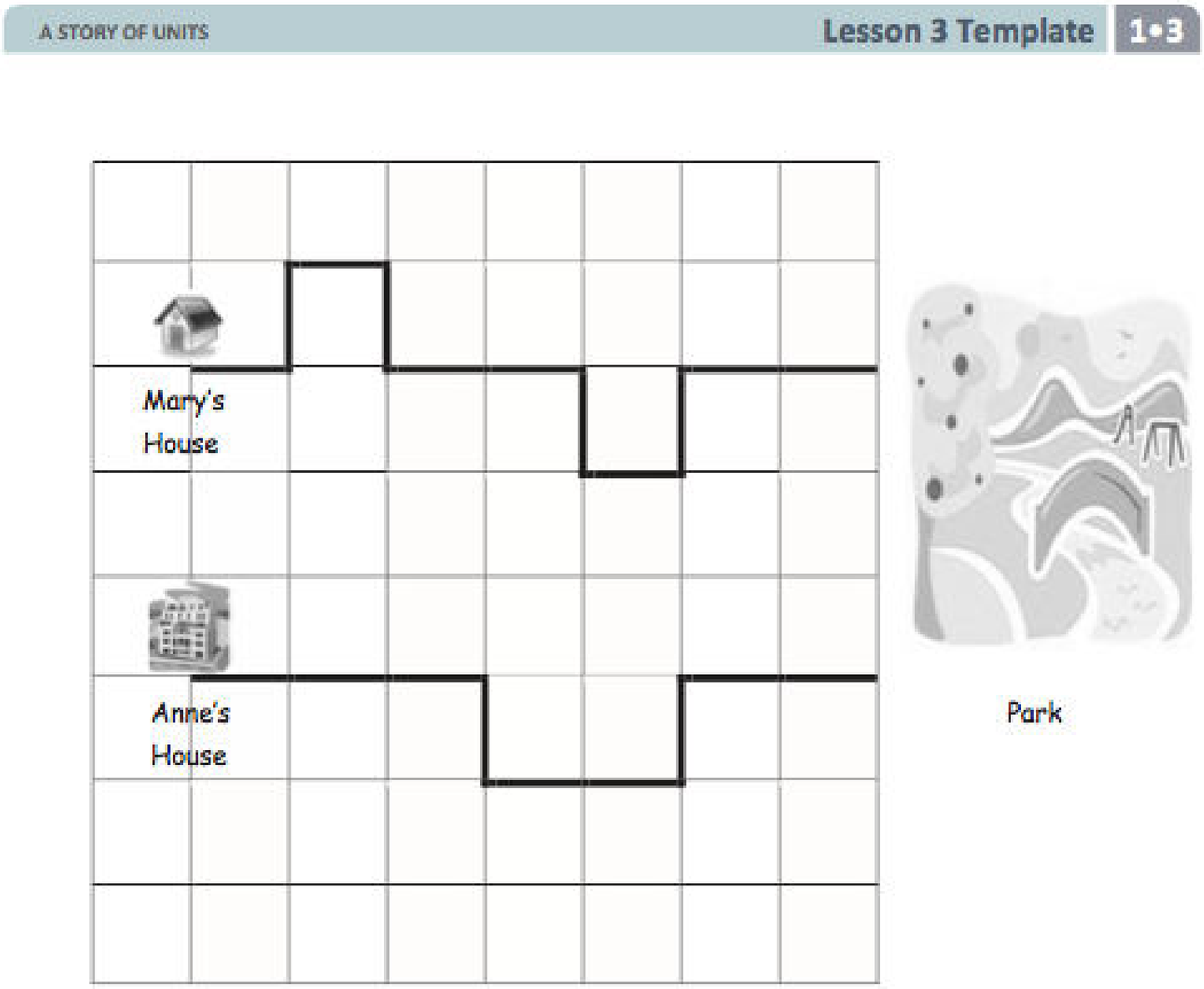
Concept Development

So, we can count how many city blocks they need to walk in order to get to the park. We don't want to count the squares because we need to trace the path, which is made up of lines, not squares.



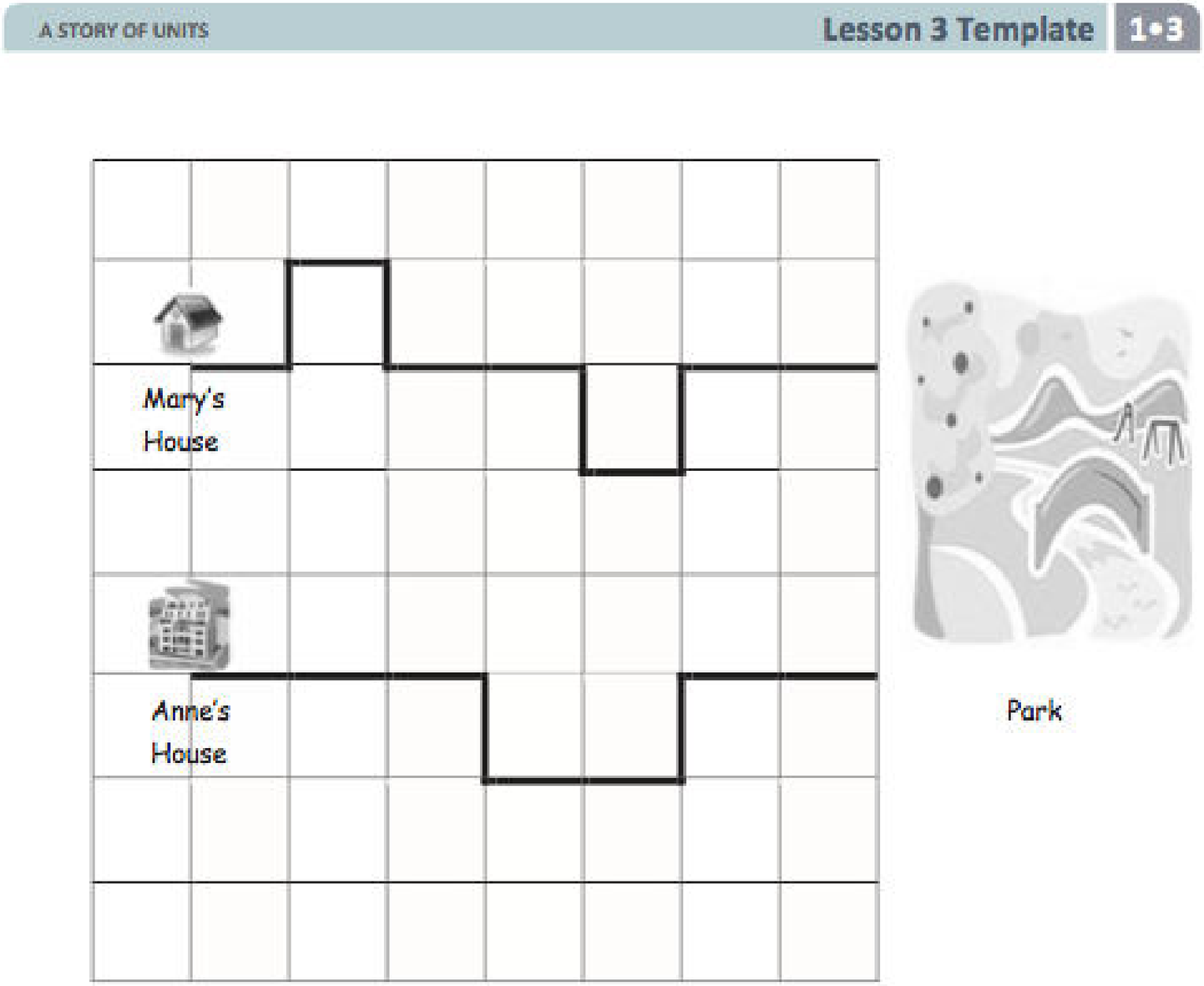
Concept Development

I’m going to trace Mary’s path with my marker so I don’t lose track. Count the city blocks with me.



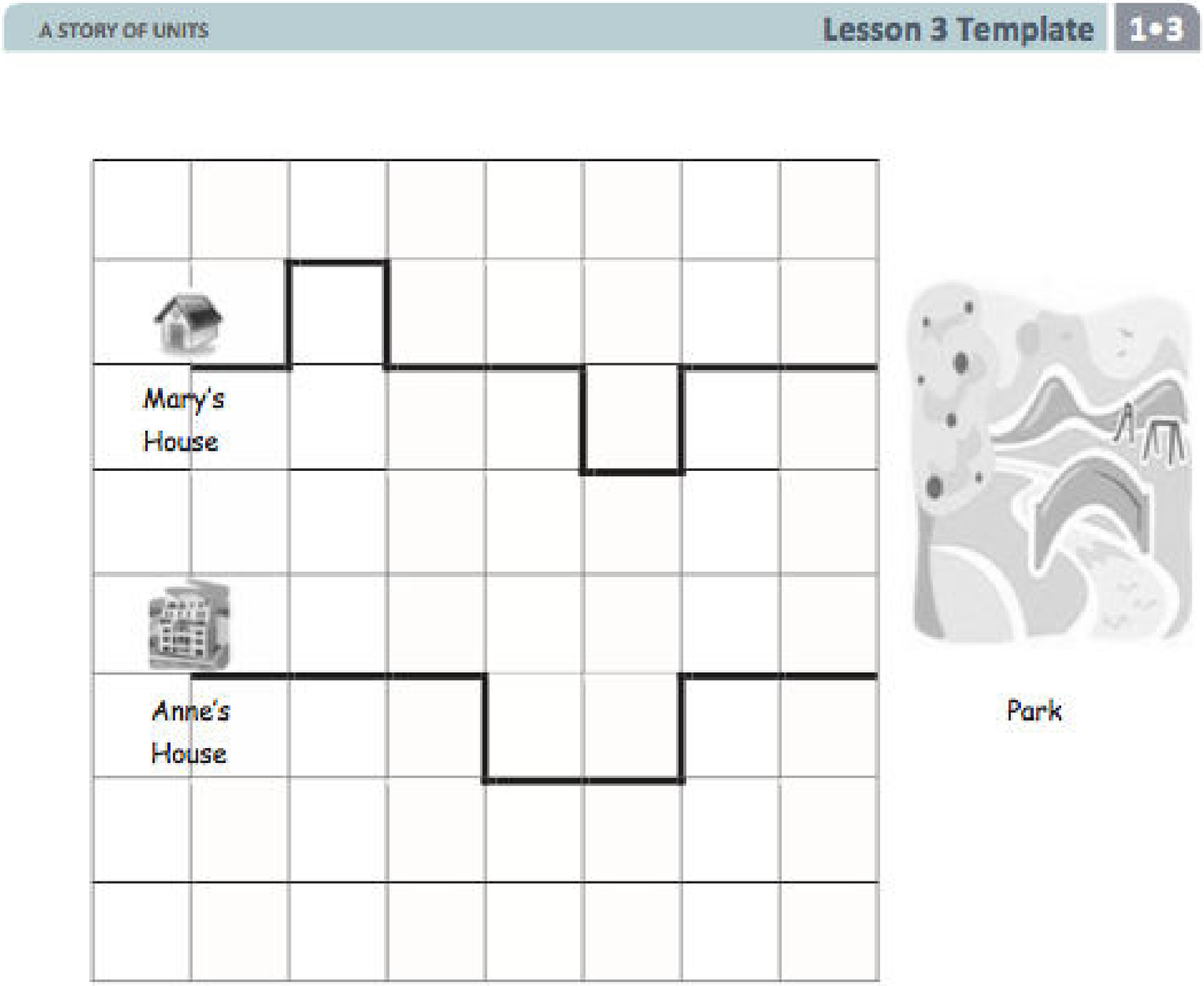
Concept Development

How many city blocks long is Mary's path?



Concept Development

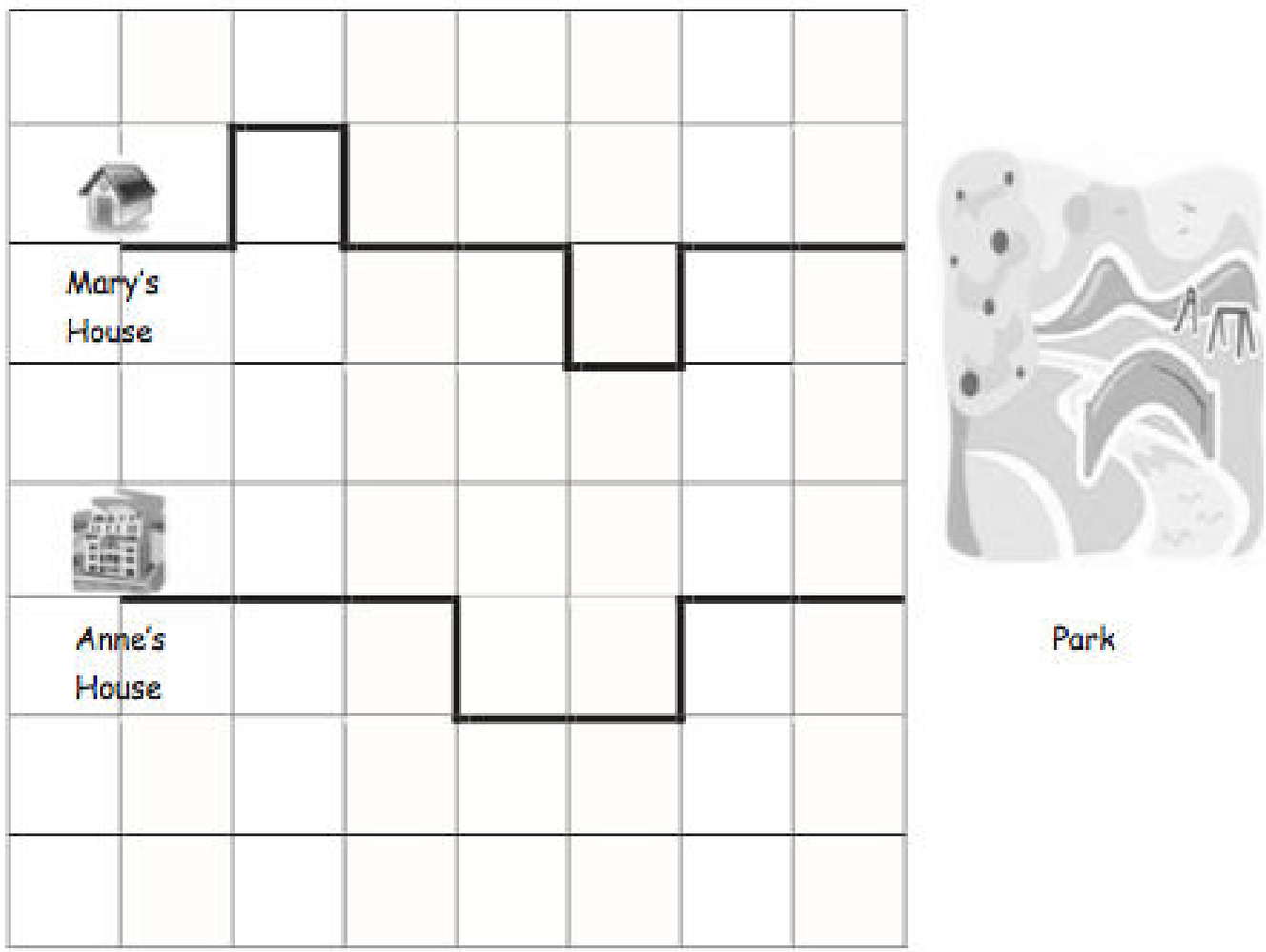
How many city blocks long is Mary's path?



Good! It is 11 city blocks long.

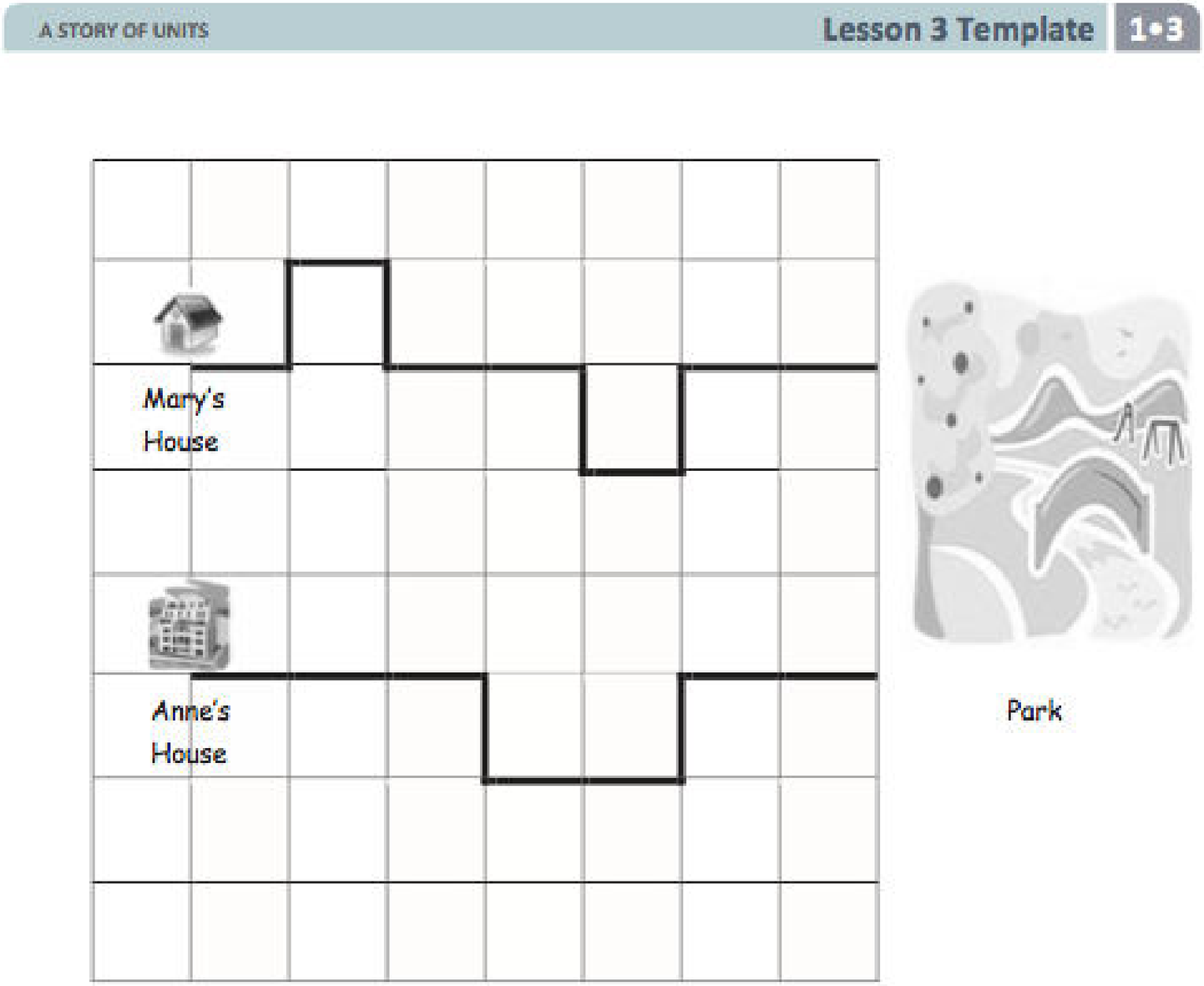
Concept Development

It’s your turn to count the city blocks on Anne’s path by tracing it with your marker.



Concept Development

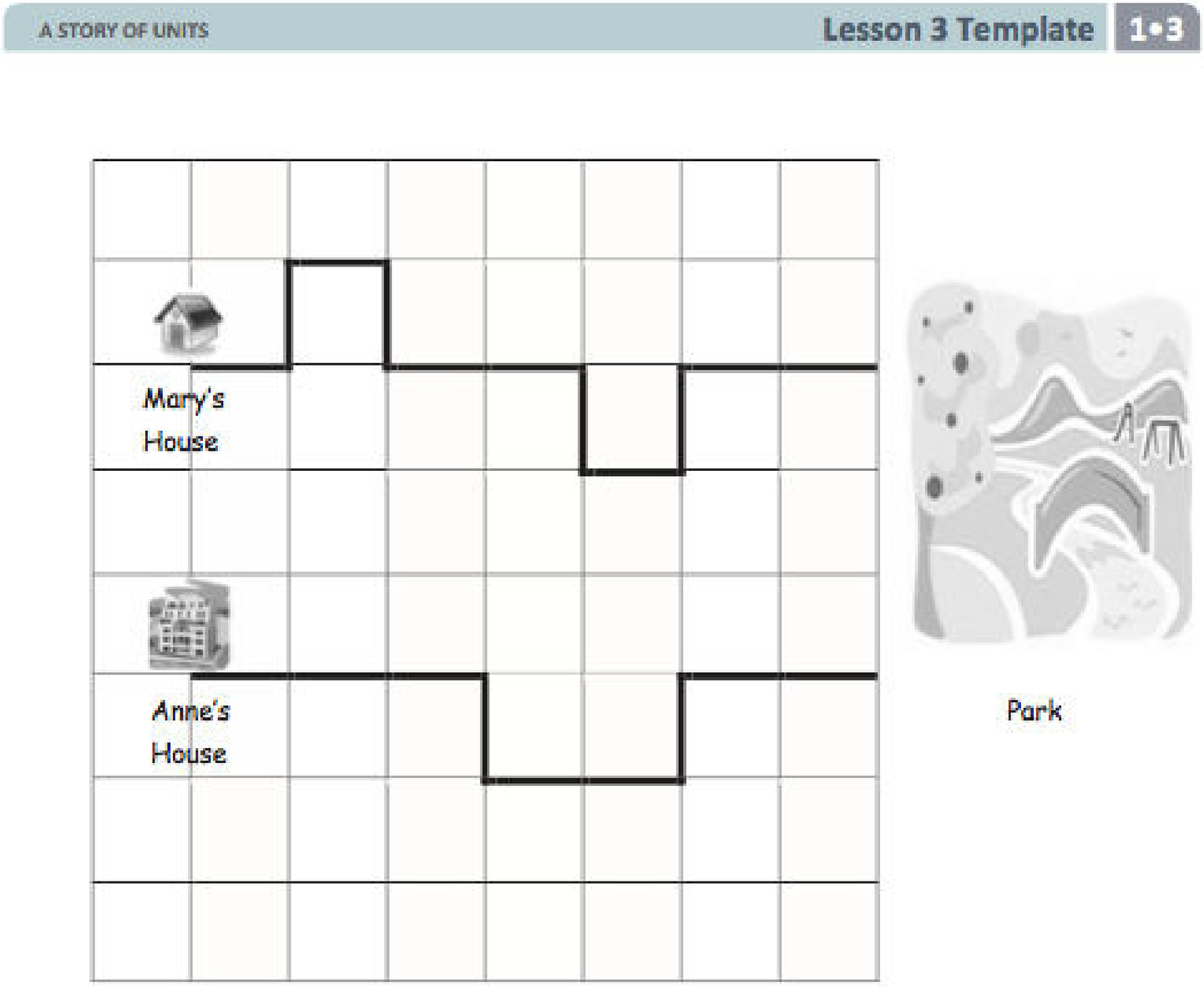
How many city blocks long is Anne's path?



Concept Development

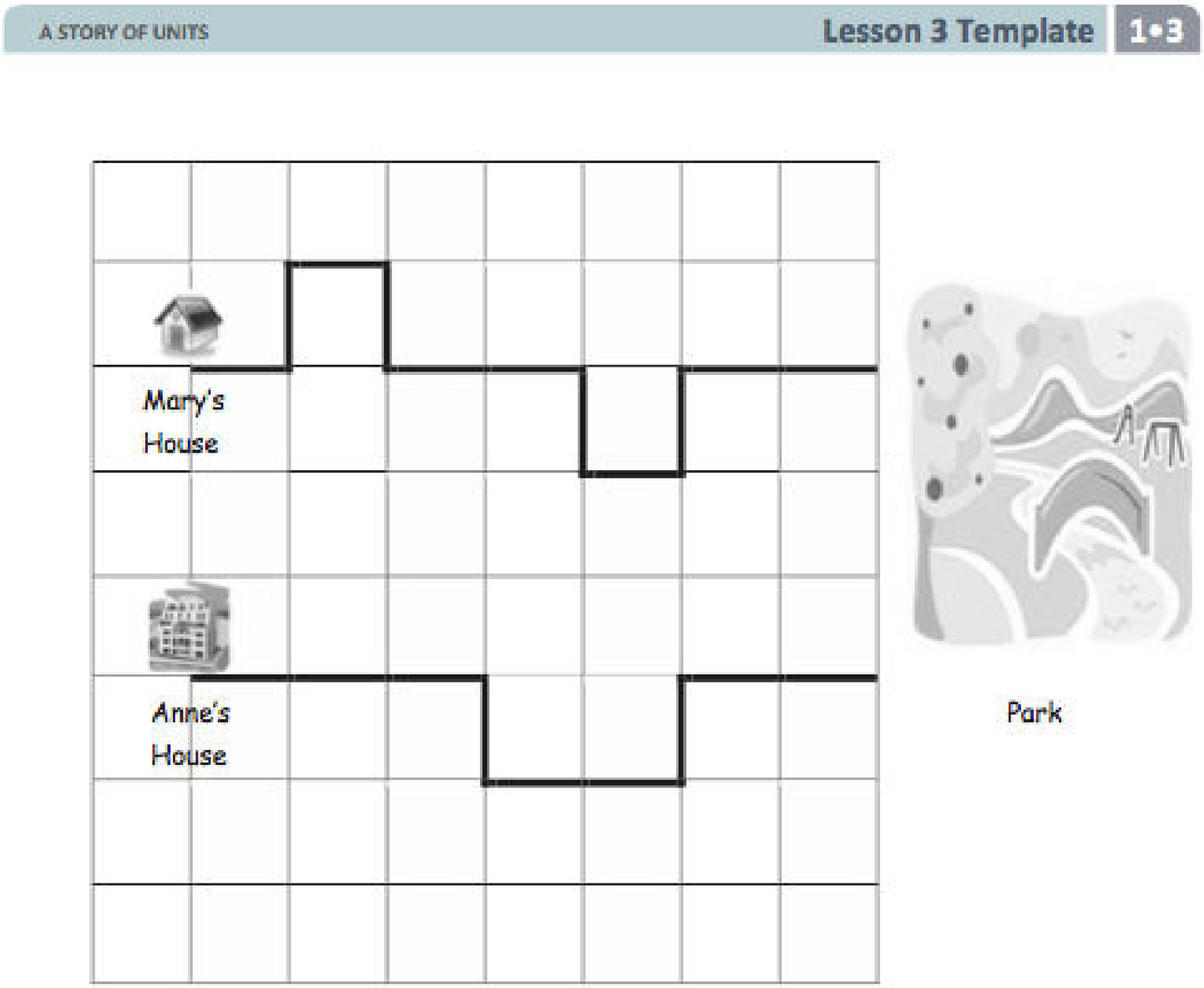
How many city blocks long is Anne's path?

I heard some of you say 9 city blocks long. Good!



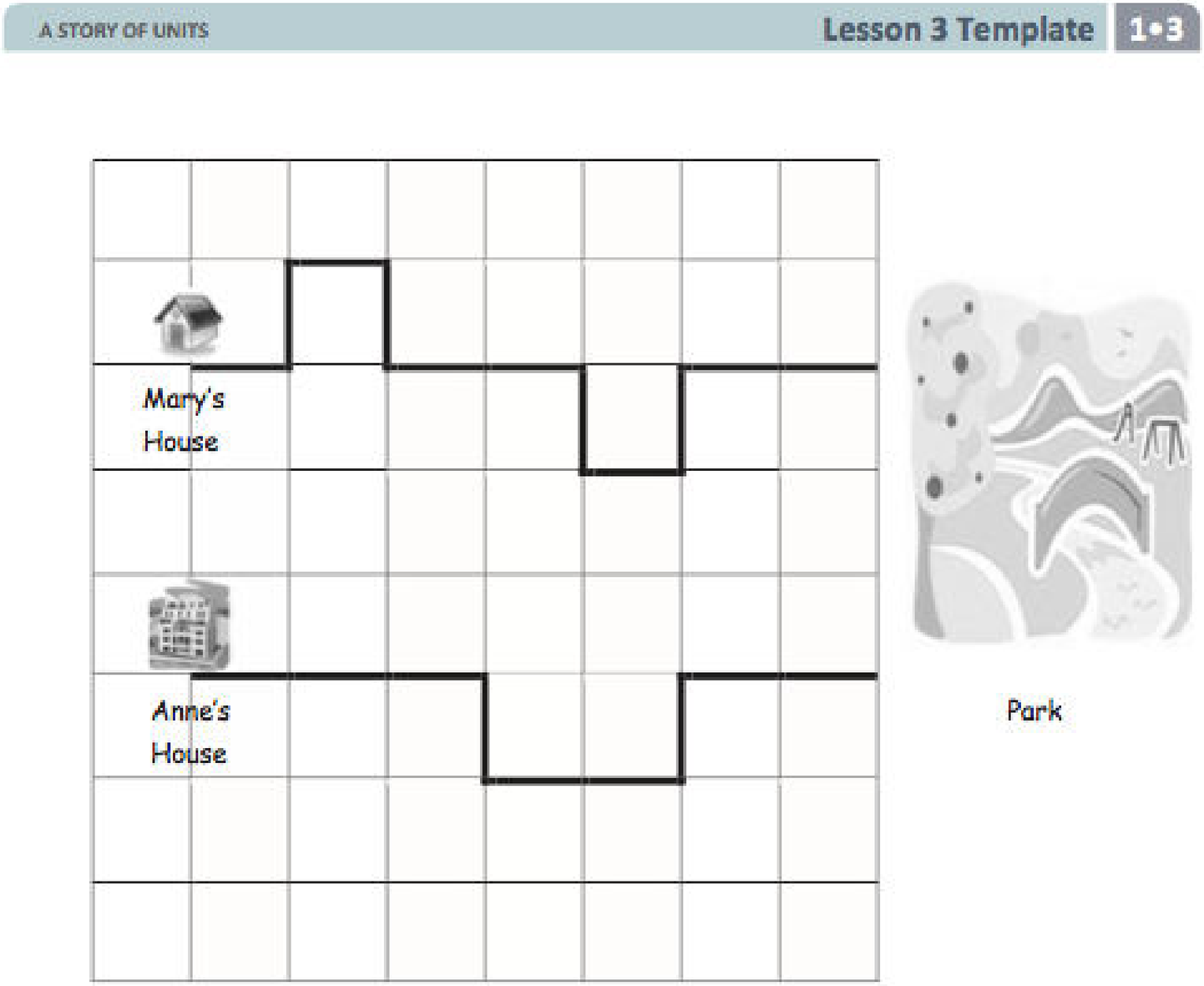
Concept Development

Help me count as I trace Anne's path.



Concept Development

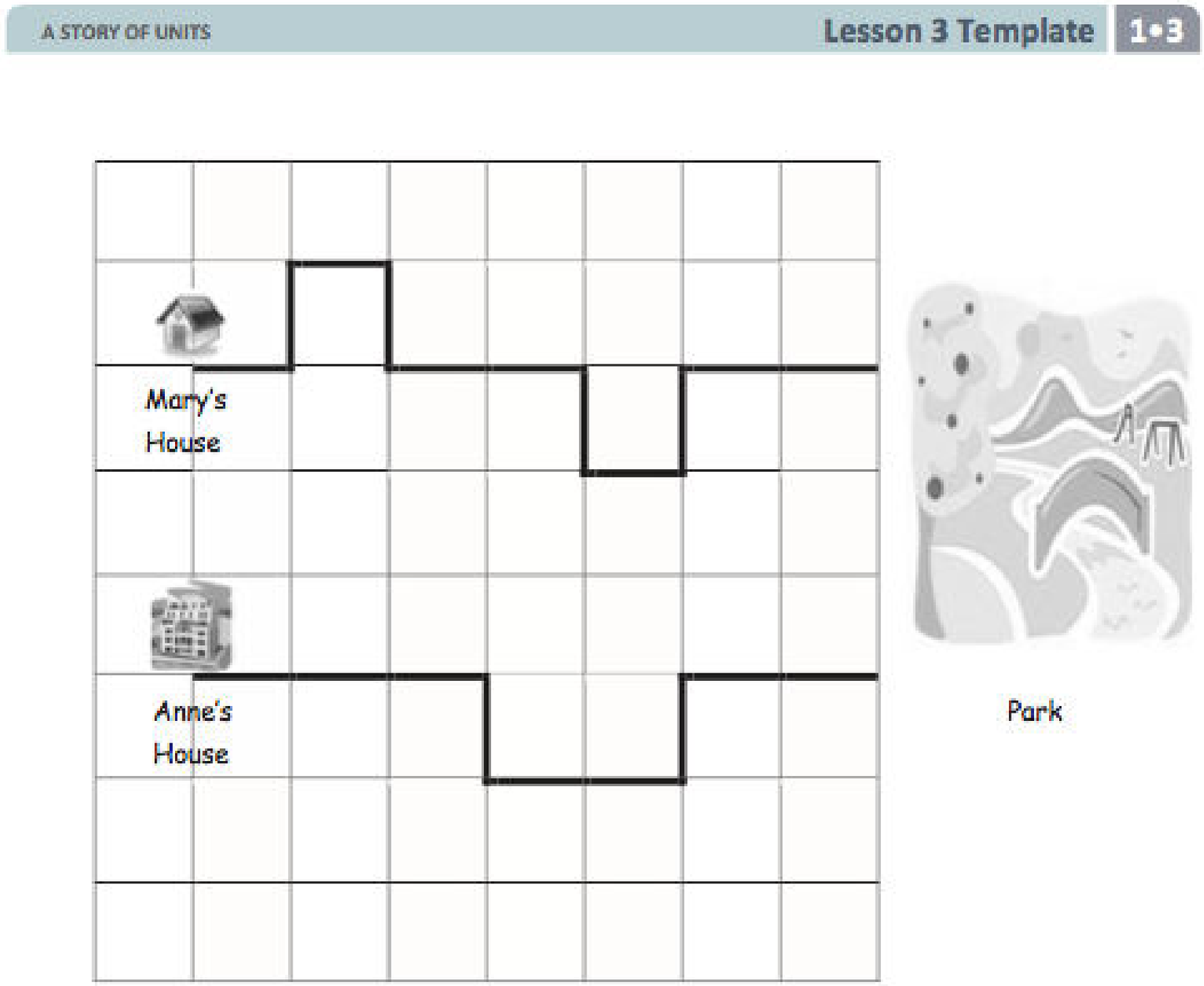
Whose path is longer? Mary's or Anne's?



Concept Development

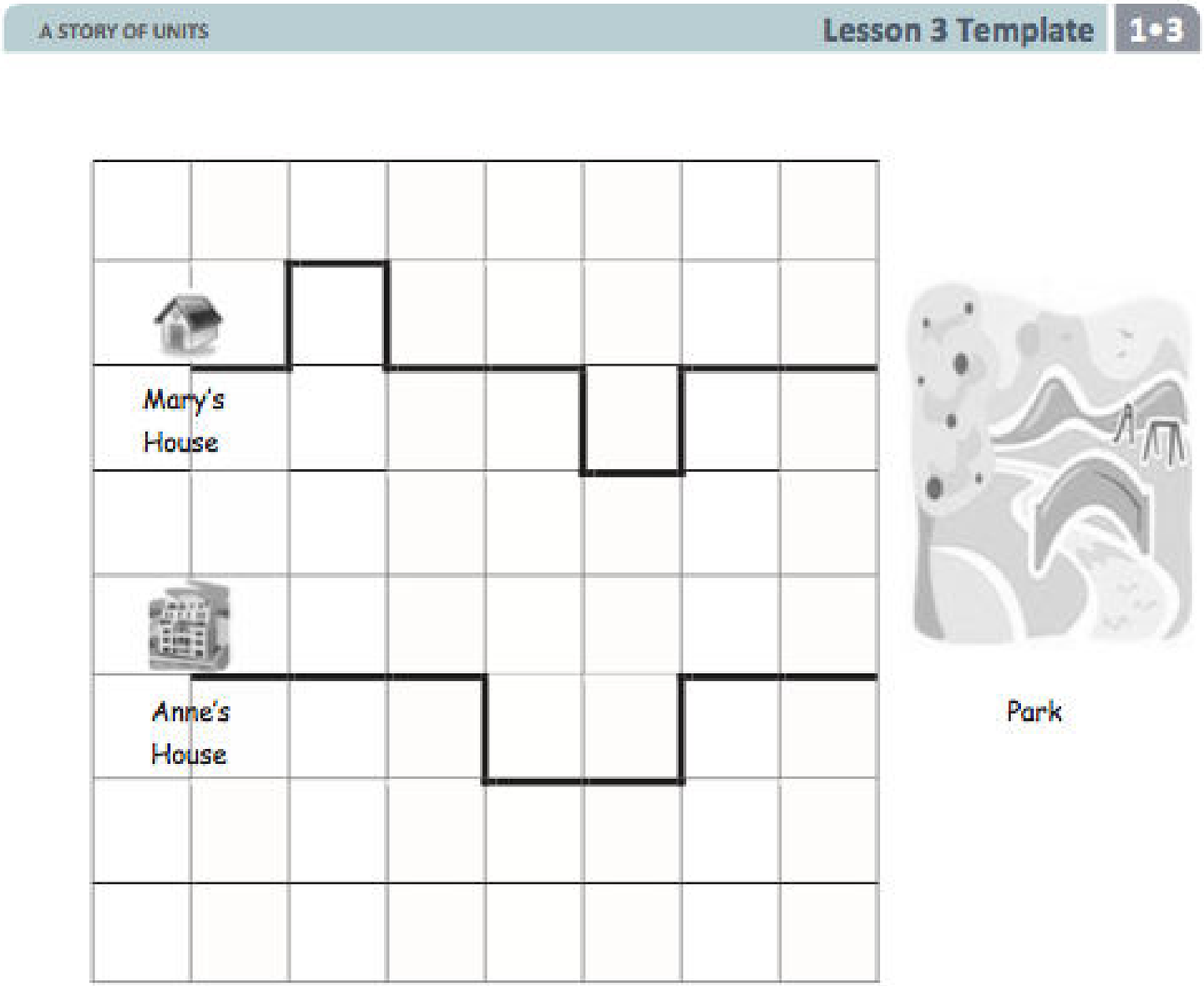
Whose path is longer? Mary's or Anne's?

Yes! Mary's path is longer.



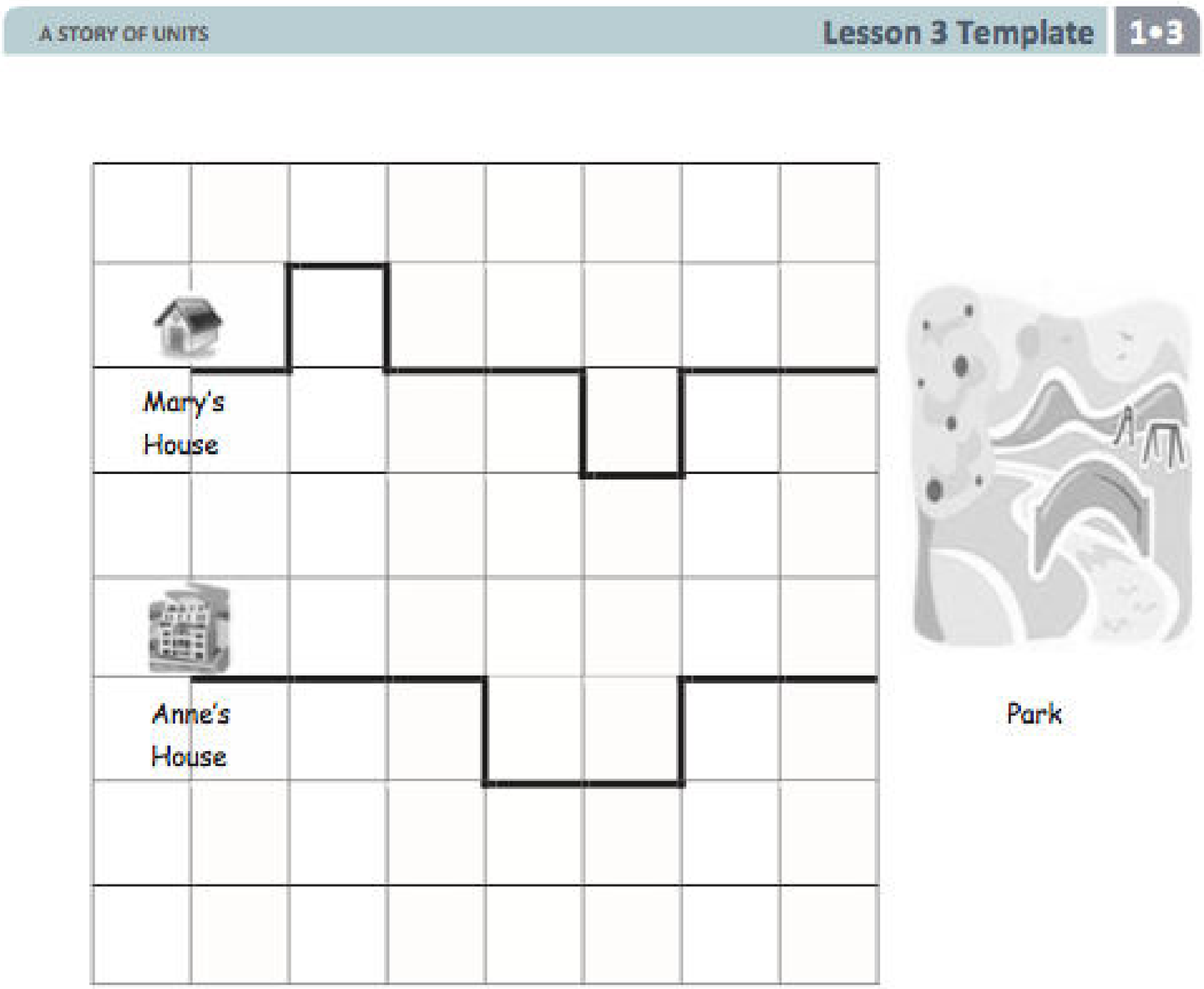
Concept Development

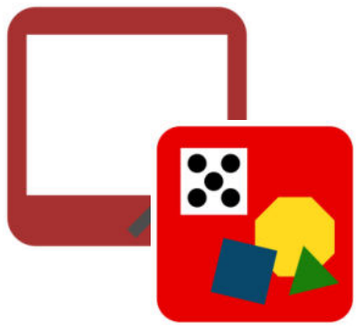
If a new girl, Beth, moves into the neighborhood and walks a longer path to get to the park than Mary, whose path is longer, Beth's or Anne's? Turn and talk to your partner about ho… you know.



Concept Development

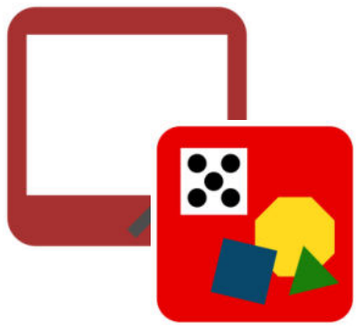
I heard you say that Beth's path will be longer than Anne's because Beth's path is longer than Mary's, and we figured out that Mary's path is longer than Anne's. So, Beth's path has to be longer than Anne's.





Concept Development

Order the paths from longest to shortest on your personal white board.



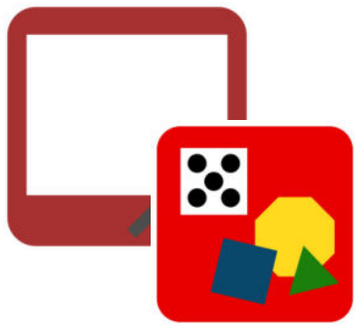
Concept Development

Order the paths from longest to shortest on your personal white board.

Yes! The order would be Beth, Mary, Anne.

Concept Development

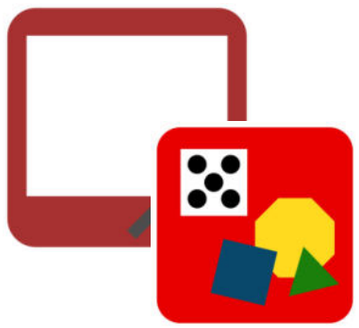
Great job comparing the lengths of different paths from the map! Let's try the same thing in our classroom. I'm trying to figure out a path to the door to line up for recess. Should we find the longest path to the door or the shortest path to the door, and why? Talk to your partner.



Concept Development

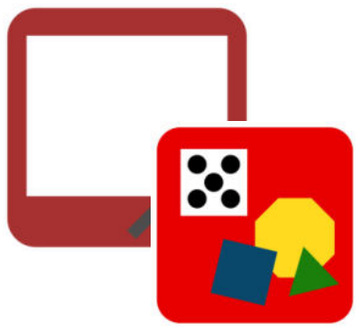
Should we find the longest path to the door or the shortest path to the door, and why?

Did you hear someone say the shortest path because it helps us get to recess sooner? Good thinking!



Concept Development

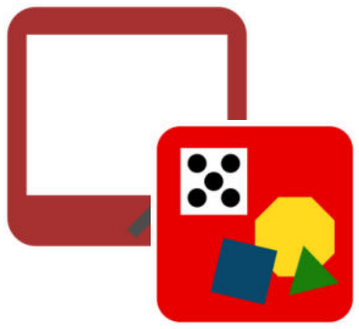
So, let’s do some comparing with the paths I’ve created in the classroom. What do you notice about these two paths?



Concept Development

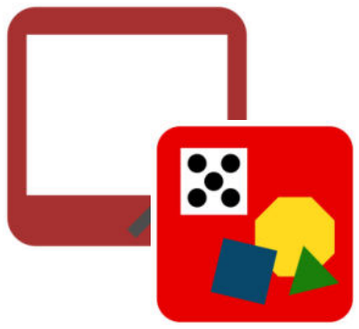
So, let’s do some comparing with the paths I’ve created in the classroom. What do you notice about these two paths?

Yes! The blue one seems longer. It looks like it’s making a lot of turns. The red one seems shorter because I see a lot more of the blue color on the floor.



Concept Development

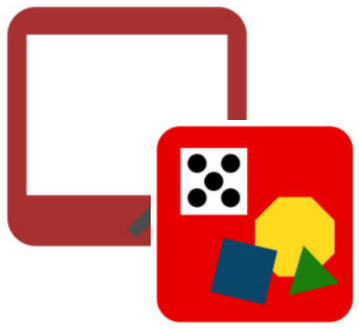
How can we check which is shorter or longer precisely?



Concept Development

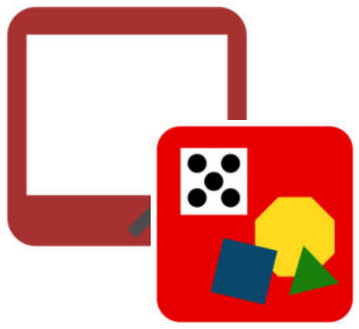
How can we check which is shorter or longer precisely?

I heard some of you say that we can count the lines just like we counted the city blocks. We can also use a string, just like we did to measure yesterday. Some of you noticed our floor has squares. We can also count those lines.



Concept Development

Let’s check by counting the tile lines just like we counted the city blocks.



Concept Development

Let’s check by counting the tile lines just like we counted the city blocks.

Which is longer?

Concept Development

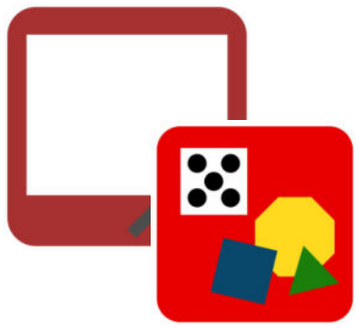
Let’s check by counting the tile lines just like we counted the city blocks.

Which is longer?

Good! The blue path is longer.

Concept Development

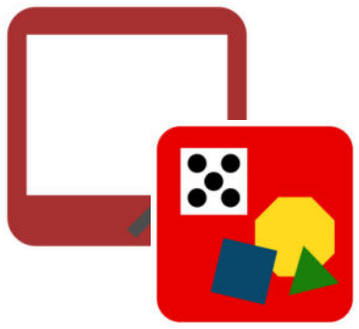
Do you think there's a shorter way to get to the door than these two paths? Turn and talk to your partner.



Concept Development

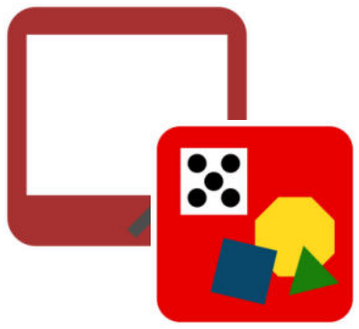
Do you think there’s a shorter way to get to the door than these two paths?

I like how I heard some of you say yes. Don’t make any turns. Just go straight to the door!



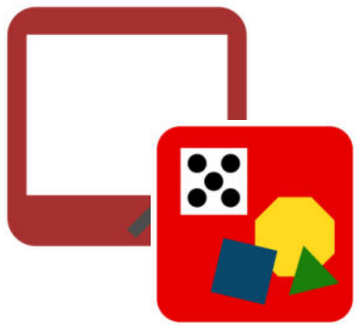
Concept Development

Here’s the straight line for the shortest path you have suggested.



Concept Development

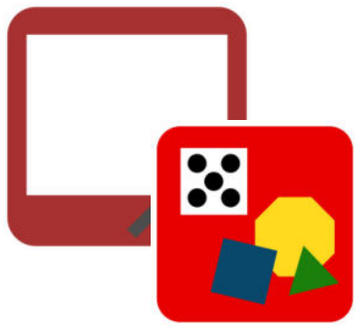
How can we make sure this is the shortest path compared to the other paths?



Concept Development

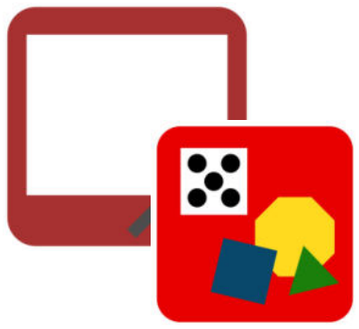
How can we make sure this is the shortest path compared to the other paths?

Good! We can put the string on the other paths and check.



Concept Development

Which path is longer, the straight path or this red path? How can you tell?



Concept Development

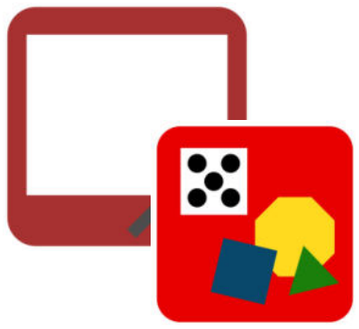
Which path is longer, the straight path or this red path? How can you tell?

I heard you say the red path is longer. It keeps going, but the string ran out. I also heard the shortest path is the straight line!

Concept Development

So, if the red path is longer than the string that measures the straight path, which is longer, the straight path or the blue path?

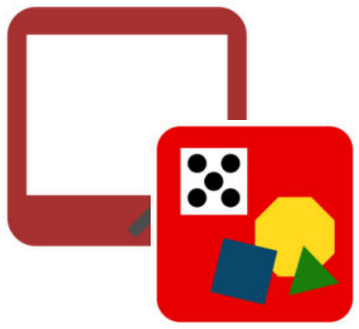
Turn and talk to your partner.



Concept Development

Which is longer, the straight path or the blue path?

Yes! The blue path is longer because the blue path is longer than the red path, and the red path is longer than the straight path.



Concept Development

Excellent job figuring out the shortest path to the door!

Problem Set

1 2 3 4 5

Problem Set

Name _____ Date _____

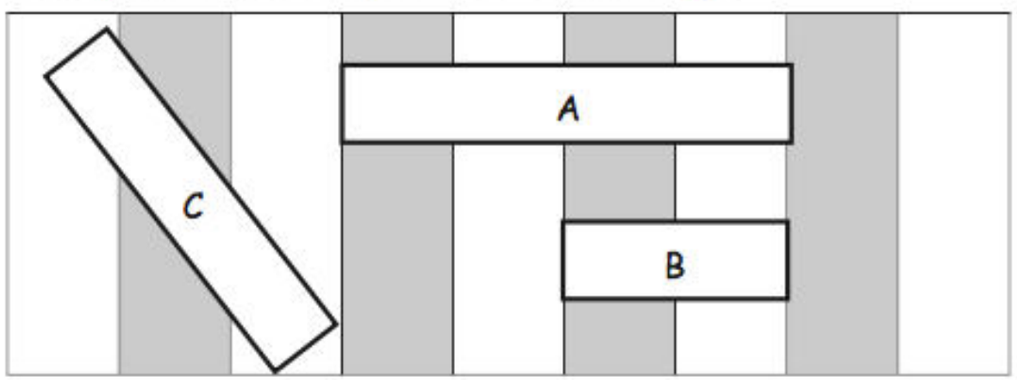
1. In a playroom, Lu Lu cut a piece of string that measured the distance from the doll house to the park. She took the same string and tried to measure the distance between the park and the store, but she ran out of string!

   Which is the longer path? Circle your answer.

   the doll house to the park

   the park to the store

Use the picture to answer the questions about the rectangles.



2. Which is the shortest rectangle? _____

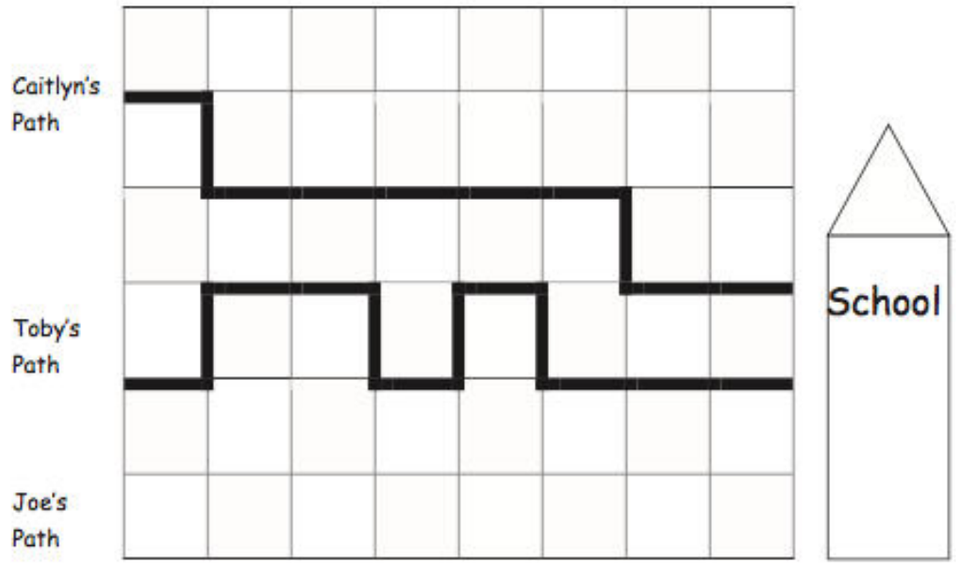
3. If Rectangle A is longer than Rectangle C, the longest rectangle is _____.

4. Order the rectangles from shortest to longest:

   _____ _____ _____

A STORY OF UNITS Lesson 3 Problem Set 1•3

Use the picture to answer the questions about the students' paths to school.



5. How long is Caitlyn's path to school? _____ blocks

6. How long is Toby's path to school? _____ blocks

7. Joe's path is shorter than Caitlyn's. Draw Joe's path.

Circle the correct word to make the statement true.

8. Toby's path is **longer/shorter** than Joe's path.

9. Who took the shortest path to school? _____

10. Order the paths from shortest to longest.

    _____ _____ _____

Debrief

Look at the city blocks grid. Think back to the shortest path we made to the door from the middle of the classroom. Draw the shortest path from Anne’s house to the park. What does the path look like? Explain why this path is the shortest path.

Debrief

What other tools can help measure the shortest distance between the middle of the classroom and the door? How does using a string help measure different paths?

Debrief

Can you think of an example where the shortest path that you could take to the door would not be a straight line?

Debrief

Explain to your partner how to solve Problem 4.

Explain to your partner how to solve Problem 6.

Debrief

How was solving Problem 3 similar to solving Problem 5?

Debrief

Look at today’s Application Problem. Order the items from longest to shortest.

Debrief

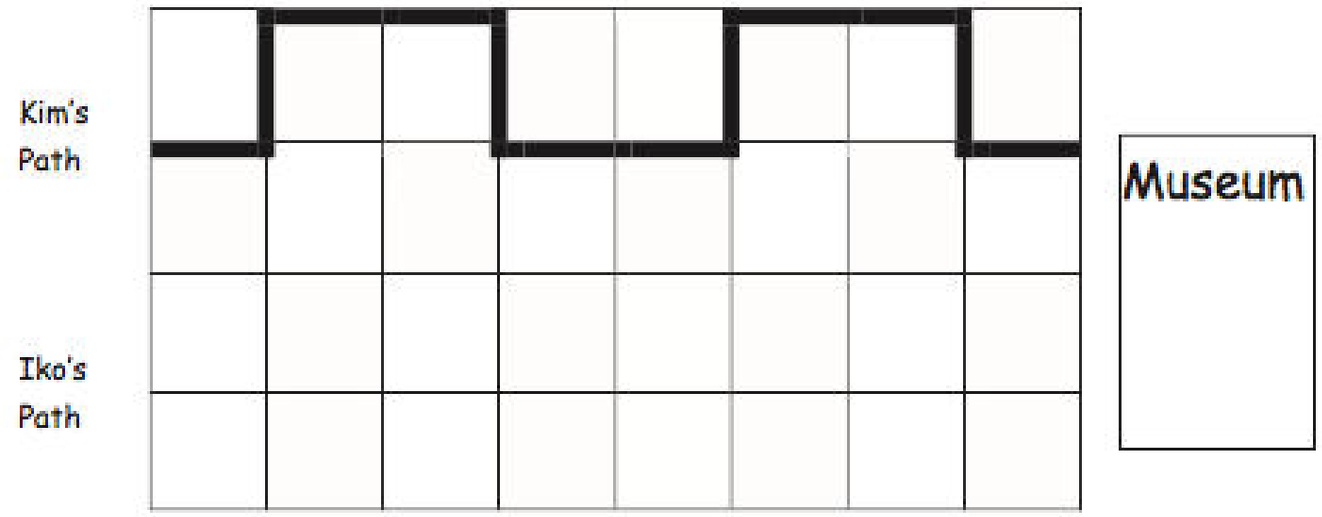
Turn to your partner and share what you learned in today's lesson.

What did you get really good at today?

Exit Ticket

Name _____ Date _____

Use the picture to answer the questions about the students' paths to the museum.



1. How long is Kim's path to the museum? _____ blocks

2. Iko's path is shorter than Kim's path. Draw Iko's path.

Circle the correct word to make the statement true.

3. Kim's path is **longer/shorter** than Iko's path.

4. How long is Iko's path to the museum? _____ blocks