Model with Mathematics Work with a partner. Graph each number on a number line.

1. −2.4

Show your work.

2. 0.1

3. −4.5

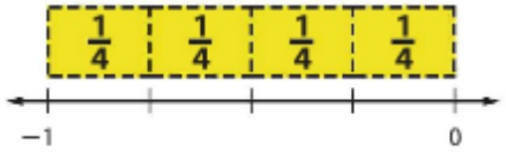
4. −6.8

Hands-On Activity 2

Graph $-\frac{3}{4}$ on a number line.

Step 1 Model $-\frac{3}{4}$ using fraction tiles. Draw a number line from -1 to 0.

Since the denominator of the fraction is 4, divide your number line into 4 equal parts.



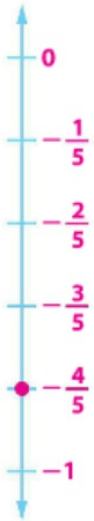
Step 2 Each mark on the number line represents $\frac{1}{4}$. Label the number line with $-\frac{3}{4}$, $-\frac{2}{4}$, and $-\frac{1}{4}$.

Step 3 Draw a dot to graph $-\frac{3}{4}$ on the number line above.

Model with Mathematics Work with a partner. Graph each number on a number line.

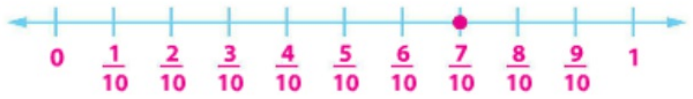
5. $-\frac{4}{5}$

Show your work.



6. −5.75

7. $\frac{7}{10}$



8. $-\frac{3}{8}$

9. 8.75

6. -5.75

9. 8.75

10. $-\frac{3}{10}$

11. $-\frac{5}{12}$

Analyze and Reflect

Collaborate

Work with a partner to complete the table. The first one is done for you.

	Number	Positive or Negative	Greater Than or Less Than Zero	Left or Right of 0 on the Number Line
	-3.5	negative	<	left
12.	$+\frac{4}{5}$	positive	>	right
13.	$-\frac{1}{3}$	negative	<	left
14.	+0.3	positive	>	right

15. CCSS **Reason Inductively** Which number is greater, 0.3 or −0.7? Explain.

0.3; Sample answer: The number 0.3 is greater than 0 and the number −0.7 is less than zero. So, 0.3 is greater than −0.7.

16. CCSS **Reason Inductively** Jacyln thinks that $-\frac{1}{2}$ is greater than $\frac{1}{4}$ because it is farther from zero on the number line. Is her thinking correct? Explain.

No; Sample answer: $-\frac{1}{2}$ is less than $\frac{1}{4}$ because it is to the left on the number line. As the numbers on the number line are read from left to right, the values increase.

Create

On Your Own

Sample answers: 17–18

17. CCSS **Model with Mathematics** Write a real-world problem that involves a positive and a negative value. Then graph the values used in the problem on a number line. Compare the values.

A rabbit dug a nest 1.2 feet under the ground. A cardinal built his nest in the top of a 10.5-foot tree. Since positive numbers are greater in value than negative numbers, 10.5 is greater than −1.2.

18. Inquiry HOW can you use a number line to model and compare positive and negative rational numbers?

Negative values are lesser the farther they are from zero. Positive values are greater the farther they are from zero.