LESSON MAKER PRO

Number Line Moves

Use opposites and signed numbers to track location.

GRADE 6 · 6.NR.3

6.NR.3 "Solve a variety of problems involving whole numbers and their opposites; model rational numbers on a number line to describe problems presented in relevant, mathematical situations."

NAME _____ DATE _____

THINK IN DIRECTIONS

Positive numbers are to the right of 0 on a number line, and negative numbers are to the left. Opposites are the same distance from 0 but on different sides. To combine moves, add rightward moves and subtract leftward moves.

WORKED EXAMPLE

Start at -7/10 on a number line. Move 9/10 unit to the right. Where do you land?

1. Write the move as addition: -7/10 + 9/10.
2. Combine the numerators: 2/10.
3. Simplify 2/10 to 1/5.

Answer: 1/5

PRACTICE 6 problems

1 What is the opposite of -16?

ANSWER _____

2 What rational number is 3/4 unit to the left of 0 on a number line?

ANSWER _____

3 Start at -11. Move 18 units to the right. Where do you land?

ANSWER _____

4 Order these numbers from least to greatest: -5/6, 2/3, -1/3.

ANSWER _____

5 What is the distance between -13 and 6 on a number line?

ANSWER _____

6 A point is at 4/5. What is the location of its opposite?

ANSWER _____

APPLY IT Show your work

1 In a multiplayer game, Jordan's character starts at position -15 on a map. The character travels 22 spaces to the right. What is the character's final position?

WORK SPACE

ANSWER _____

2 In a building game, a player starts at -1/4 on an elevation meter. The player moves 2 3/4 units to the right. What elevation is shown now?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Point P is at -2 2/3 on a number line. Point Q is the opposite of P. Point R is 1 1/3 units to the right of Q. What is the location of R? Explain your reasoning.

_____

_____

ANSWER KEY

Number Line Moves

GRADE 6 · 6.NR.3

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the opposite of -16?	**16**
2	What rational number is 3/4 unit to the left of 0 on a number line?	**-3/4**
3	Start at -11. Move 18 units to the right. Where do you land?	**7**
4	Order these numbers from least to greatest: -5/6, 2/3, -1/3.	**-5/6, -1/3, 2/3**
5	What is the distance between -13 and 6 on a number line?	**19**
6	A point is at 4/5. What is the location of its opposite?	**-4/5**

PART 2 · APPLY IT

1. **7** Add the rightward move to the starting position: -15 + 22 = 7. The character ends at position 7.
2. **2 1/2** Add the move to the starting elevation: -1/4 + 2 3/4 = 2 1/2. The new elevation is 2 1/2.

CHALLENGE

R is at 4. Q is at 2 2/3, and 2 2/3 + 1 1/3 = 4.

Accept equivalent fraction forms, such as 5/2 for 2 1/2. A positive sign is optional for positive answers.