

Opposite Side Quest

Use signs to find locations across zero.

GRADE 6 • 6.NS.C.6a

CCSS.Math.Content.6.NS.C.6a "Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3) = 3$, and that 0 is its own opposite."

NAME _____

DATE _____

ACROSS ZERO

Numbers with the same distance from 0 but different signs are opposites, so they are on opposite sides of 0. Taking the opposite twice returns to the starting number, and 0 is its own opposite.

WORKED EXAMPLE

Find the opposite of -12.

1. Start with -12.
2. Move the same distance from 0 to the other side.
3. The point is 12.

Answer: 12

PRACTICE 6 problems

1 Find the opposite of -8.

ANSWER _____

2 Find the opposite of 5.

ANSWER _____

3 Find the opposite of 0.

ANSWER _____

4 Evaluate $-(-7)$.

ANSWER _____

5 Are -4 and 4 opposites? Write yes or no.

ANSWER _____

6 The opposite of x is -9. What is x ?

ANSWER _____

APPLY IT Show your work

- 1** In a gaming tournament, losing 11 points is recorded as -11. What number represents gaining the opposite amount of points?

WORK SPACE

ANSWER _____

- 2** A science app shows a robot at -2 meters relative to sea level. It moves to the opposite location, then moves to the opposite of that location. Where is the robot now?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A number n has an opposite of $-(-15)$. What is n ? Explain how you know.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find the opposite of -8.	8
2	Find the opposite of 5.	-5
3	Find the opposite of 0.	0
4	Evaluate $-(-7)$.	7
5	Are -4 and 4 opposites? Write yes or no.	Yes
6	The opposite of x is -9. What is x ?	9

PART 2 • APPLY IT

1. **11** The opposite of -11 is 11, so gaining 11 points is represented by 11.
2. **-2 meters** The opposite of -2 is 2. The opposite of 2 is -2, so the robot returns to -2 meters.

CHALLENGE

$n = -15$, because $-(-15) = 15$. If the opposite of n is 15, then n is -15.

Accept positive numbers written with or without a plus sign. For the challenge, accept any clear explanation that evaluates $-(-15)$ as 15 and identifies -15 as its opposite.