LESSON MAKER PRO

Across Zero

Find opposites on a number line

GRADE 6 · 6.NOS.C.6.c

6.NOS.C.6.c "Recognize and locate opposite signs of rational numbers as indicating locations on opposite sides of 0 on the number line."

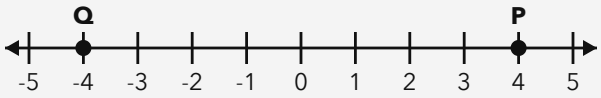
NAME _____ DATE _____

THE BIG IDEA

Opposite numbers are the same distance from 0 on different sides. Positive numbers are to the right of 0, and negative numbers are to the left.

WORKED EXAMPLE

Which point is opposite P? How far is each point from 0?



1. P is 4 units right of 0.
2. Q is 4 units left of 0.
3. They are the same distance from 0 on opposite sides.

Answer: Q; each point is 4 units from 0.

PRACTICE 4 problems

1 What number is opposite -7?

ANSWER _____

2 What number is opposite 1/2?

ANSWER _____

3 Which side of 0 is -1.25 on?

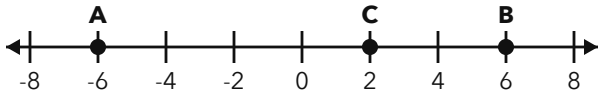
ANSWER _____

4 Are -9 and 9 opposites? Give one reason.

ANSWER _____

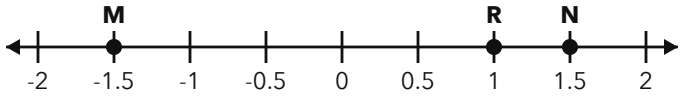
APPLY IT Show your work

1 A game tracks score changes on this line. Which point is opposite A, and what score change does it show?



ANSWER _____

2 A weather app tracks temperature changes from yesterday on this line. Which point is opposite M, and what change does it show?



ANSWER _____

CHALLENGE One step up

Are -3/4 and 0.75 opposites? Explain using their positions relative to 0.

WORK SPACE AND ANSWER

Across Zero

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What number is opposite -7?	**7**
2	What number is opposite 1/2?	**-1/2**
3	Which side of 0 is -1.25 on?	**Left**
4	Are -9 and 9 opposites? Give one reason.	**Yes. They are each 9 units from 0 on opposite sides.**

PART 2 · APPLY IT

1. **B; a gain of 6 points.** A is 6 units left of 0. B is 6 units right of 0, so it shows the opposite score change.
2. **N; an increase of 1.5 degrees.** M is 1.5 units left of 0. N is 1.5 units right of 0, so it shows the opposite temperature change.

CHALLENGE

Yes. Since 0.75 = 3/4, the numbers are the same distance from 0 on opposite sides.

Accept equivalent forms, such as +1.5 for an increase of 1.5 degrees. For explanations, look for equal distances from 0 on opposite sides.