

Sign Switch

Find opposites and distances from zero.

GRADE 6 • TEKS 6.2.B

6.2.B "identify a number, its opposite, and its absolute value;"

NAME _____

DATE _____

THE BIG IDEA

The opposite of a number is the same distance from 0 on the other side. Change a number's sign to find its opposite, but 0 is its own opposite. Absolute value is a number's distance from 0, so it is never negative.

WORKED EXAMPLE

Find the opposite and absolute value of -14.

1. Change the sign: -14 becomes 14.
2. Count the distance from -14 to 0: 14 units.

Answer: Opposite: 14; absolute value: 14

PRACTICE 6 problems

1 For 9, write its opposite and absolute value.

ANSWER _____

2 For -23, write its opposite and absolute value.

ANSWER _____

3 For 0, write its opposite and absolute value.

ANSWER _____

4 For $5/6$, write its opposite and absolute value.

ANSWER _____

5 For $-3/4$, write its opposite and absolute value.

ANSWER _____

6 The opposite of what number is -18? Then write that number's absolute value.

ANSWER _____

APPLY IT Show your work

- 1** In a video game, your team's score changes by -16 points after a penalty. What score change is the opposite of -16 ? What is the absolute value of -16 ?

WORK SPACE

ANSWER _____

- 2** At an indoor climbing gym, a marker is 6 feet below the starting platform. Its position is represented by -6 . What position is the opposite of -6 ? What is the absolute value of -6 ?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A mystery number is negative. Its opposite has an absolute value of 11. What is the mystery number? Explain your reasoning.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	For 9, write its opposite and absolute value.	Opposite: -9; absolute value: 9
2	For -23, write its opposite and absolute value.	Opposite: 23; absolute value: 23
3	For 0, write its opposite and absolute value.	Opposite: 0; absolute value: 0
4	For $5/6$, write its opposite and absolute value.	Opposite: $-5/6$; absolute value: $5/6$
5	For $-3/4$, write its opposite and absolute value.	Opposite: $3/4$; absolute value: $3/4$
6	The opposite of what number is -18? Then write that number's absolute value.	Number: 18; absolute value: 18

PART 2 • APPLY IT

- Opposite score change: 16 points; absolute value: 16** Change the sign of -16 to find its opposite. The distance from -16 to 0 is 16.
- Opposite position: 6 feet; absolute value: 6** The opposite of a position below the platform is the same distance above it. The distance from -6 to 0 is 6.

CHALLENGE

The mystery number is -11. Its opposite is 11, and the absolute value of 11 is 11.

Accept equivalent fraction forms only when they have the same value, such as $6/8$ for $3/4$. For the challenge, accept any clear explanation that identifies -11 and connects its opposite to an absolute value of 11.