

Distance From Zero

Use absolute value to measure distance on a number line.

GRADE 6 • 6.NS.2.d

6.NS.2.d "Identify and describe the absolute value of an integer as the distance from zero on the number line."

NAME _____

DATE _____

ABSOLUTE VALUE MEANS DISTANCE

Absolute value tells how far an integer is from zero on a number line. Distance is never negative, so an integer and its opposite have the same absolute value. Zero is 0 units from zero.

WORKED EXAMPLE

Find $|-14|$.

1. Start at -14 on the number line.
2. Count the units from -14 to 0.
3. The distance is 14 units.

Answer: $|-14| = 14$

PRACTICE 6 problems

1 Find $|-7|$.

ANSWER _____

2 Find $|12|$.

ANSWER _____

3 Write both integers that are 15 units from zero.

ANSWER _____

4 A number line point is at -3. How far is it from zero?

ANSWER _____

5 Find the distance from -11 to zero.

ANSWER _____

6 Find $|0|$.

ANSWER _____

APPLY IT Show your work

- 1** At a skate park, a ramp starts 6 feet below ground level. Its elevation is -6 feet. How far is the ramp's starting point from ground level?

WORK SPACE

ANSWER _____

- 2** In a video game, Maya's score changes by -13 points after a challenge. How many points is the size of the score change?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Two integers have an absolute value of 10. One integer is negative. Write both integers and explain why they have the same absolute value.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Find $ -7 $.	7
2	Find $ 12 $.	12
3	Write both integers that are 15 units from zero.	-15 and 15
4	A number line point is at -3. How far is it from zero?	3 units
5	Find the distance from -11 to zero.	11 units
6	Find $ 0 $.	0

PART 2 • APPLY IT

1. **6 feet** Find $|-6|$. The starting point is 6 feet from ground level.
2. **13 points** Find $|-13|$. The score change has a size of 13 points.

CHALLENGE

The integers are -10 and 10. Each integer is 10 units from zero.

Accept answers written with units when the question includes a context. For the challenge, accept any correct explanation that both numbers are 10 units from zero.