

Lesson 7-3 • Apply Day

Reinforce Understanding

Absolute Value and Total Distance

I can find the absolute value of a rational number — an integer, fraction, or decimal — as its distance from zero.

Worked model

In one day a town's temperature rose from -38 degrees to 46 degrees. How great was the temperature swing?

1. One reading sits left of 0 and one sits right, so 0 falls between them.
2. Distance from the low reading to 0: $-38 = 38$
3. Distance from 0 to the high reading: $46 = 46$
4. Join the two distances to cover the whole trip: $38 + 46 = 84$

Answer: The temperature swing was 84 degrees.

Practice

Complete each exercise. Show the reasoning that supports your answer.

1. (Lesson 7.1) A diver is 4 feet below the surface. Write the integer, then its opposite.

Complete each step, then write the final answer.

1. Below/lost/owed means negative: the integer is ____.
2. The opposite sits the same distance from 0 on the other side: ____.
3. Both are ____ units from zero, and here zero means the surface.

Answer: _____

2. (Lesson 7.1) The temperature is 6 degrees below zero. Write the integer, then its opposite.

Complete each step, then write the final answer.

1. Below/lost/owed means negative: the integer is ____.
2. The opposite sits the same distance from 0 on the other side: ____.
3. Both are ____ units from zero, and here zero means zero degrees.

Answer: _____

3. (Lesson 7.1) A player loses 8 points. Write the integer, then its opposite.

Complete each step, then write the final answer.

1. Below/lost/owed means negative: the integer is ____.
2. The opposite sits the same distance from 0 on the other side: ____.
3. Both are ____ units from zero, and here zero means no change in score.

Answer: _____