Understand Absolute Value of Rational Numbers

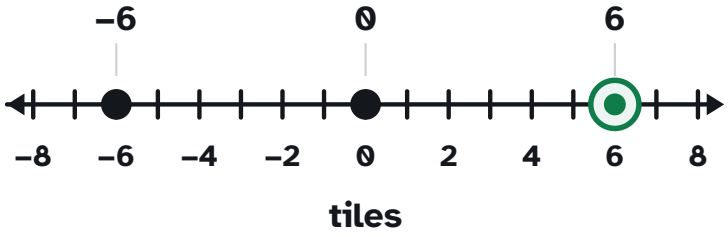
Find the absolute value of a number as its distance from zero.

Name _____ **Date** _____

Tonight's spark

A school hallway map puts 0 at the front office. The art room is at −6, six tiles left. The gym is at 6, six tiles right. Which is farther from the office?

Guess first: is one of them farther, or is it a tie?



Our class model: distance from zero

Try it

Work it out on paper. Write one answer on each line.

1. **What is |−9|?**

   A. −9 **B.** 9 **C.** 0 **D.** 1/9

   My answer _____

2. **What is |12|?**

   A. −12 **B.** 0 **C.** 12 **D.** 21

   My answer _____

3. **What is |−3.5|?**

   A. 3.5 **B.** −3.5 **C.** 0.35 **D.** 35

   My answer _____

4 **What is |–3/4|?**

A. –3/4 **B.** 4/3 **C.** 3/4 **D.** 1/4

My answer _____

5 **A diver is at –20 feet. What does |–20| tell us?**

A. The diver is 20 feet above sea level **B.** Sea level is –20 feet **C.** The diver is at 0

D. The diver is 20 feet from sea level

My answer _____

6 **Which number has the greatest absolute value?**

A. –8 **B.** 5 **C.** –2 **D.** 7

My answer _____

Talk about it

How far is this number from 0? Can a distance ever be negative?

Home mission

Pick a doorway as zero. Take 4 steps left of it and say, "I am at –4." Ask your student: how far from zero am I? Then take 4 steps right and ask again.

If we get stuck, ask

- How far is that number from zero?
- Can a distance ever be negative?
- What is the opposite of this number?

Do it on a screen

Scan or type the link. Same lesson, with hints.

eduwonderlab.com/lessons/7-3/homework.html

How did it feel? (optional)

Tricky Getting there Got it