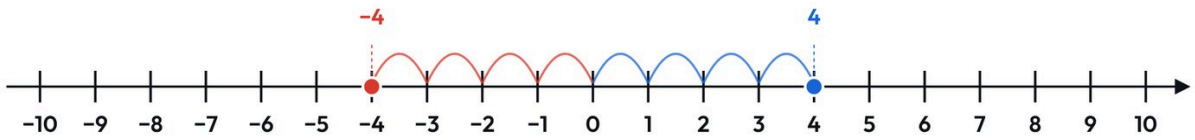
Names (pair) _____ Date _____

# Opposites and Absolute Value

Example

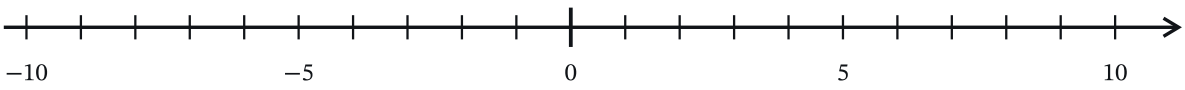



The numbers $-4$ and $4$ are **opposites**: they are the same distance from zero, on different sides. The distance of a number from zero is called its **absolute value** and is written between two bars: $|-4| = 4$ and $|4| = 4$.

**1** ON YOUR OWN Complete the table.

| number | opposite | absolute value |
|---|---|---|
| $7$ | | |
| $-3$ | | |
| $0$ | | |
| $-15$ | | |
| $120$ | | |
| $-1$ | | |

**2** IN PAIRS Answer using the number line.




a) Which numbers are $5$ away from zero? _____

b) Which numbers are $3$ away from the number $2$? _____

c) Which integers have an absolute value less than $3$? _____

Names (pair) _____ Date _____

**Remember**

The sign "−" has **three meanings**: **subtract** $(7 - 3)$, **a negative number** $(-3)$ and **the opposite** ($-a$ is the opposite of $a$). So $-(-3) = 3$: the opposite of $-3$ is $3$.

**3** IN PAIRS What does each "−" sign mean? Write S (subtract), N (negative number) or O (opposite), from left to right.

| | |
|---|---|
| $8 - 5$ | |
| $-5$ | |
| $-(-5)$ | |
| $2 - (-3)$ | |
| $-x$ | |

**4** ON YOUR OWN Work out.

$-(-7) =$ ☐ $\quad -(+4) =$ ☐ $\quad -(-(-2)) =$ ☐

$|-9| =$ ☐ $\quad -|-9| =$ ☐ $\quad |3 - 8| =$ ☐

**5** IN A GROUP CHALLENGE Is $-a$ always a negative number? Give an example. For which numbers is $|a| = a$?

**The Counters app · otooly.com/counters**

**Free** mode: make $-3$ with blue counters, then flip every counter. What number do you get? What is the opposite of $0$?

★ ON YOUR OWN **Exit card.** $-(-6) =$ ☐ $\quad |-11| =$ ☐