Section Overview

Professional Development

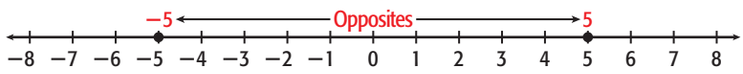
Understanding, Comparing, and Ordering Integers

Lessons 11-1, 11-2

Why? By including integers, we can solve equations such as $x + 4 = 2$ and evaluate subtraction expressions such as $4 - 9$.

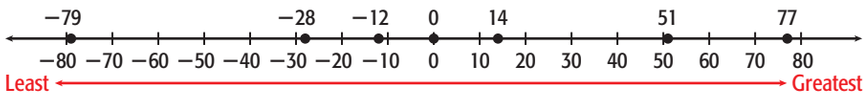
The **integers** are the set of whole numbers and their opposites.

Opposites are the same distance from 0, but on opposite sides of 0. The opposite of 0 is itself, 0.



Integers are **ordered from least to greatest** as you move left to right along the number line.

To order the integers −12, 14, −28, 77, 0, 51, and −79 from least to greatest, consider their relative positions on a number line.



The numbers written from least to greatest are −79, −28, −12, 0, 14, 51, and 77.

Graphing on a Coordinate Plane

Lesson 11-3

Why? When a coordinate plane includes integers, the horizontal and vertical axes divide the plane into four quadrants.

Each point on the coordinate plane is identified by an **ordered pair** of numbers: an *x*-coordinate and a *y*-coordinate.