

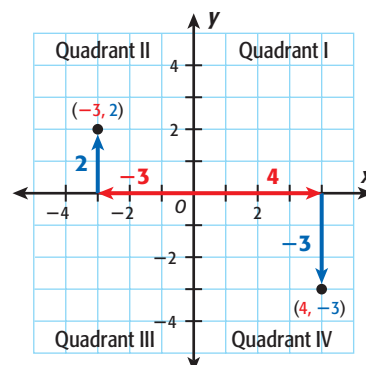
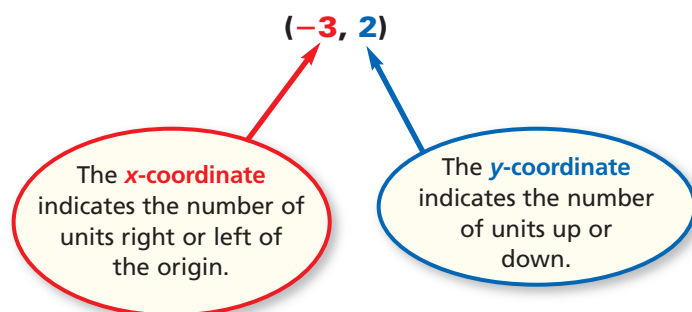
## Section Overview

## Graphing on a Coordinate Plane

Lesson 2-6

**Why?** Students need to know how to graph points on a coordinate plane before they can learn to graph linear equations.

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



## Linear Equations

Lessons 2-7, 2-8

**Why?** Many everyday situations, such as the relationship between gallons of gasoline and cost of gasoline, can be modeled by linear equations. Graphs of these equations can be used to make predictions.

Graph the equation  $y = 2x + 1$ .

Make a table.

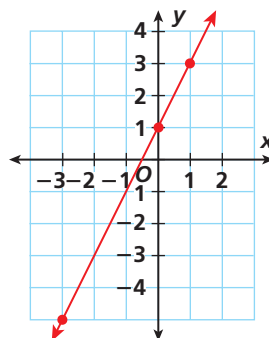
$x$	$2x + 1$	$y$
-3	$2(-3) + 1$	-5
0	$2(0) + 1$	1
1	$2(1) + 1$	3

Write the ordered pairs.

$(x, y)$   
 $(-3, -5)$   
 $(0, 1)$   
 $(1, 3)$

Graph the ordered pairs on a coordinate plane.

Draw a line through the points.



Every point on the line represents a solution to the equation.

When you graph the ordered pairs of an equation in two variables, the points may form a straight line. An equation such as this is called a **linear equation**.