



# Putting the Pieces Together

Let's use the slope and points to write equations.

## 18.1

### Worked Example: Find the Slope

Identify the slope of the linear equation  $3x + 2y = 7$ .

Step 1:

$$\begin{aligned}3x + 2y &= 7 \\2y &= -3x + 7\end{aligned}$$

Step 2:

$$\begin{aligned}2y &= -3x + 7 \\y &= \frac{-3}{2}x + \frac{7}{2}\end{aligned}$$

Step 3:

The slope is  $\frac{-3}{2}$ .

## 18.2

### Find the Line

Write the equation of each line using the information given.

1. The slope of the line is -2 and the  $y$ -intercept is 5.
2. The slope of the line is 3 and the  $x$ -intercept is 2.



3. The slope of the line is  $\frac{4}{5}$  and a point on the line is  $(5, 6)$ .

4. The slope of the line is  $-1$  and a point on the line is  $(-5, -2)$ .

### 18.3 Where's the Line?

Write the equation of the line that goes through each pair of points:

1.  $(0, -4)$  and  $(-8, 0)$

2.  $(0, 1)$  and  $(1, 3)$

3.  $(1, -3)$  and  $(6, 7)$

4.  $(2, 1)$  and  $(4, -3)$

