



# 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)

