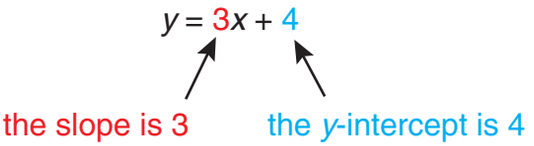
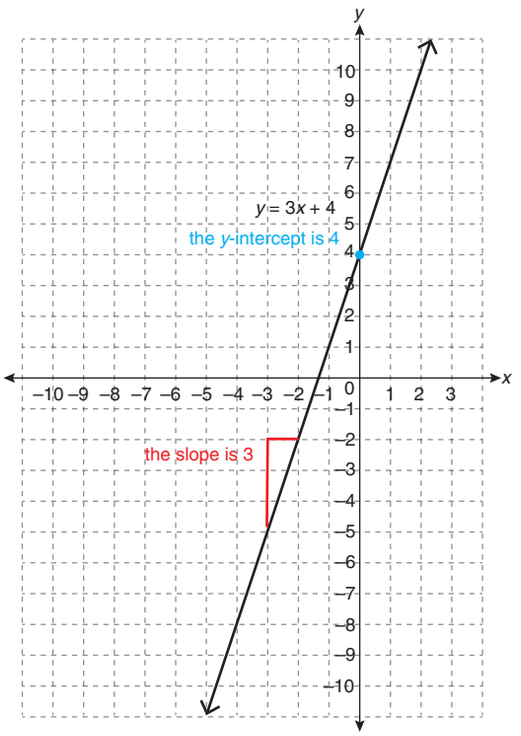
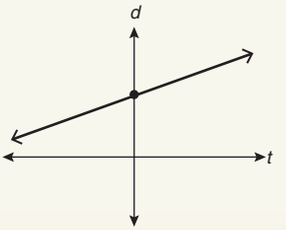




The y-intercept can be represented by the point of intersection between the graph and the y-axis or by just the y-value of that point of intersection. Both of the following statements represent the same information.

- The y-intercept occurs at $(0, 4)$.
- The y-intercept is 4.

The y-intercept is more generally known as the **vertical-axis intercept**. Although y is a common label for the vertical axis, other variables can be used. The graph below shows a d-intercept.



Multimedia

A video explaining the slope-intercept form of a linear equation is provided.

Check Up

1. State the slope and y-intercept of the graphs of each of the following linear relations.

   a. $y = 4x - 7$

   b. $y = -\frac{1}{2}x + 9$

   c. $16x = y + 23$

☑ Compare your answers.

1. State the slope and y-intercept of the graphs of each of the following linear relations.

   a. $y = 4x - 7$

   The slope is 4 and the y-intercept is –7.

   b. $y = -\frac{1}{2}x + 9$

   The slope is $-\frac{1}{2}$ and the y-intercept is 9.

   c. $16x = y + 23$

   Rearrange this equation into slope-intercept form to interpret it correctly.

   $16x = y + 23$

   $16x - 23 = y + 23 - 23$

   $16x - 23 = y$

   The slope is 16 and the y-intercept is –23.