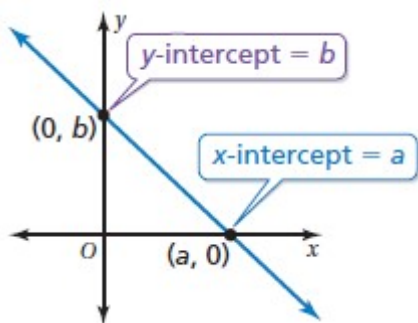


In Class Notes

The - of a line is the x-coordinate of the point where the line crosses the x-axis. It occurs when $y = 0$.

The - of a line is the y-coordinate of the point where the line crosses the y-axis. It occurs when $x = 0$.



$$y = mx + b$$

↑ ↑
slope y-intercept

A linear equation written in the form $y = mx + b$ is in - .

The slope of the line is m , and the y-intercept of the line is b .

Identifying Slopes and y-Intercepts

Ex:) Determine the slope and y-intercept of the graph of each linear equation.

Notes:

a. $y = -4x - 2$

b. $y - 5 = \frac{3}{2}x$

OYO:) Determine the slope and y-intercept of the graph of each linear equation.

Notes:

a. $y = 3x - 7$

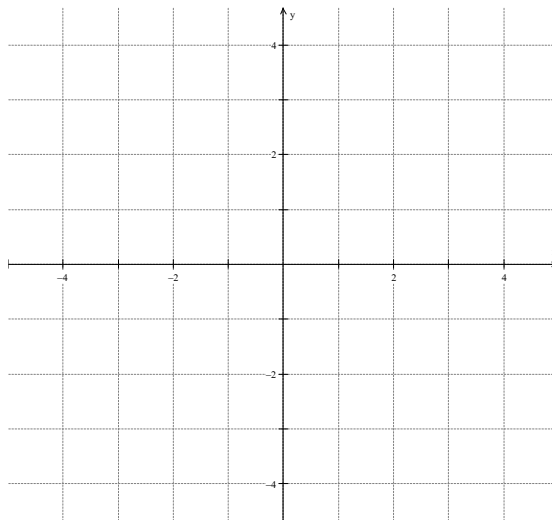
b. $y - 1 = -\frac{2}{3}x$

Graphing a Linear Equation in Slope-Intercept Form

Ex:) Graph the given equation and identify the x-intercept.

Notes:

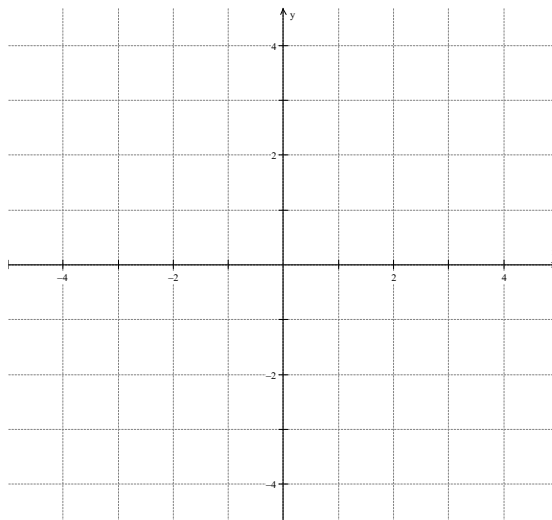
$$y = -3x + 3$$



OYO:) Graph the given equation and identify the x-intercept.

Notes:

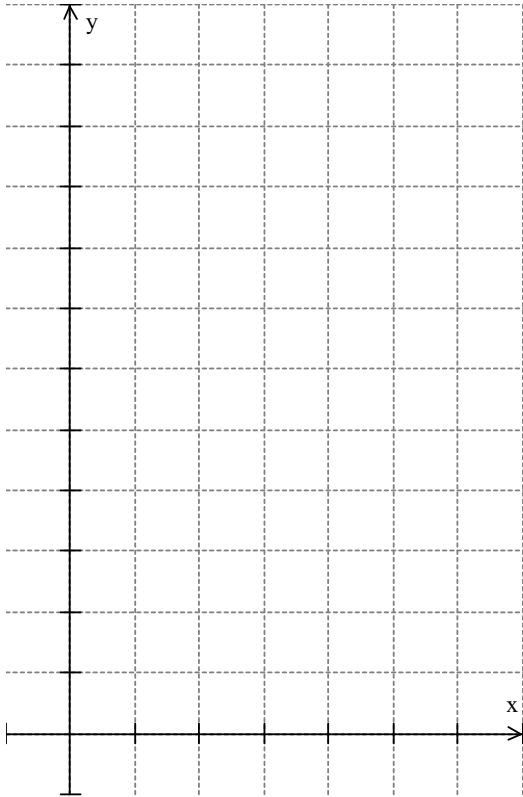
$$y = x - 4$$



Modeling Real Life

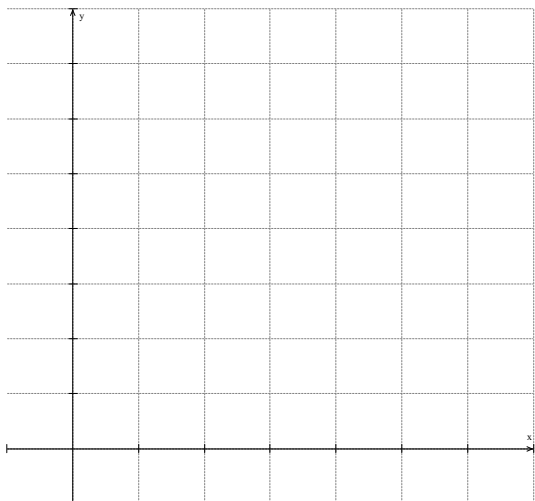
Ex:) The number y of perfume bottles in storage after x months is represented by the equation $y = -20x + 460$. Graph the equation. Interpret the y -intercept and slope. In how many months will there be no perfume bottles left in storage? Justify your answer.

Notes:



OYO:) The cost y (in dollars) of taking a taxi x miles is represented by the equation $y = 2.5x + 2$. Graph the equation. Interpret the y -intercept and the slope.

Notes:



When creating graphs for the assignment, be sure to

1. _____
2. _____
3. _____
4. _____

