

Watch the videos and take notes on this page

Due at the Beginning of Next Class

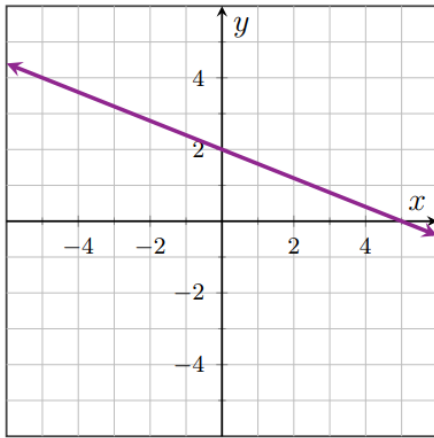
Section 4.7 Standard Form and Graphing Using Intercepts

Identifying Intercepts

The x-intercept occurs where the graph crosses the x-axis.
The y-intercept occurs where the graph crosses the y-axis.

1. Identify the x-intercept and the y-intercept for each line below.

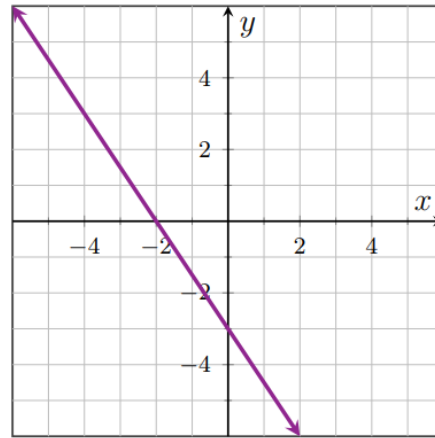
a.



x-intercept:

y-intercept:

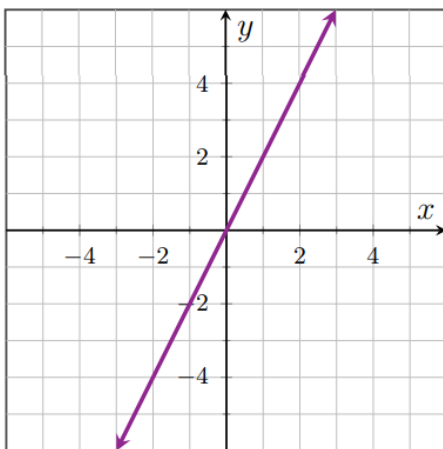
b.



x-intercept:

y-intercept:

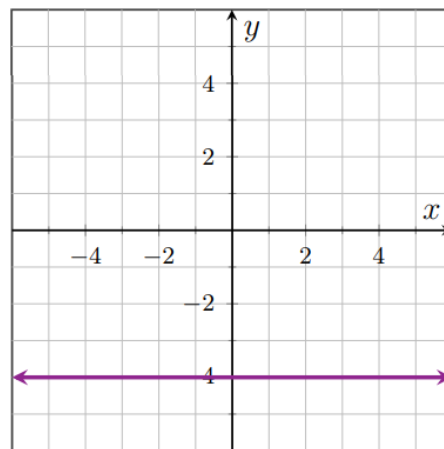
c.



x-intercept:

y-intercept:

d.



x-intercept:

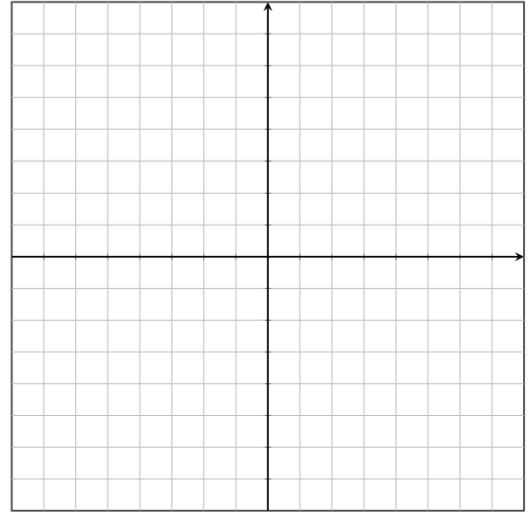
y-intercept:

What do you notice about all x-intercepts?

What do you notice about all y-intercepts?

Standard Form of a Line: $Ax + By = C$

2. Find the x-intercept and y-intercept for the equation $x - y = 6$. Then graph the equation.



Rewrite the equation in slope-intercept form and check the graph.

3. Rewrite the line in slope-intercept in standard form.

a. $y = 4x - 2$

b. $y = -\frac{1}{2}x + 6$

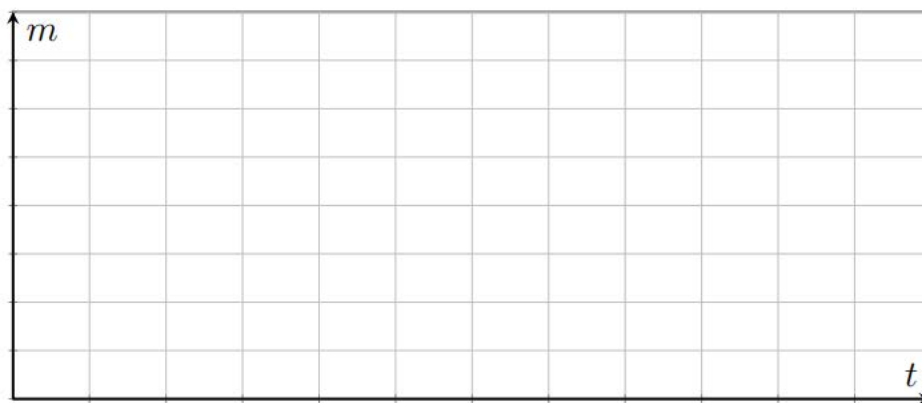
4. An office manager is ordering markers and tissues. Let t be the number of tissue boxes (\$2 each) and let m be the number of packages of markers (\$16 each). Assuming she has a total budget of \$500, the number of markers and tissue boxes she can purchase can be modeled by the equation $2t + 16m = 500$.

Use t on the horizontal axis and m on the vertical axis.

a. Find the t -intercept. What does this represent?

b. Find the m -intercept. What does it represent?

c. Graph this equation using the intercepts. Label the axes and scale.



d. Solve $2t + 16m = 500$ to put it in slope-intercept form. Use this to state and interpret the slope for this equation.