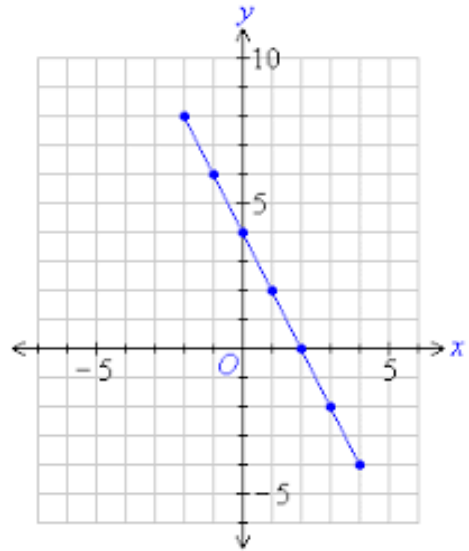


Date: _____

6.3 Graphing a Line Using Intercepts

Look at the graph provided.

- 1) State the coordinates of the y - intercept.
- 2) What do you think the x - intercept is?



State its coordinates.

- 3) What is the slope of the line? Write its equation.

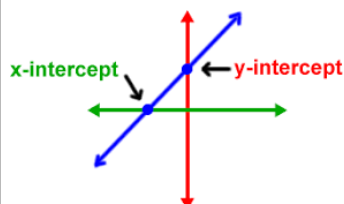
Finding x and y Intercepts Given an Equation

When you are given an equation in standard form or a variation of standard form (see below), it is often easier to graph with intercepts rather than rearranging to $y = mx + b$.

ex/ Find the x and y intercepts for the line $4x - 5y = 20$, and then use the intercepts to graph the line on the grid above.

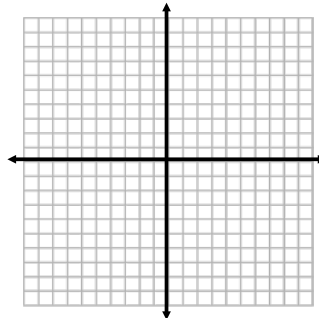
Since the x - coordinate of the y - intercept is ALWAYS zero, we can find the y - intercept by letting x equal zero in our equation.

Since the y - coordinate of the x - intercepts is ALWAYS zero, we can find the x - intercept by letting y equal zero in our equation.

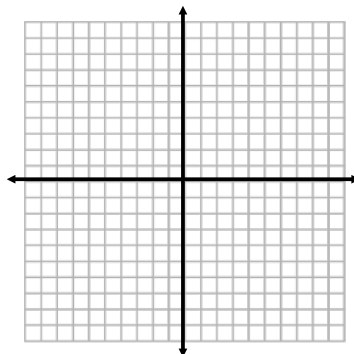


Practice Problems

- 1) A line has an x - intercept of 3 and a y - intercept of 2. Use the intercepts to graph the line. Then state the slope of line and write the equation.



- 2) Graph the line represented by $-3x + 4y = 8$ using intercepts. State the slope of the line from your graph.



- 3) A line has an x - intercept of -7 and a y - intercept of 4. Use the slope formula to find the slope of the line.

- 4) A line has an x - intercept of -3 and does not have a y - intercept. What type of line is this? What is the equation of the line?

- 5) A line has a y - intercept of 1.5 and does not have an x - intercept. What type of line is this? What is the equation of the line?

