

Identifying Parallel and Perpendicular Lines

Name _____

Parallel Lines are lines that

1.

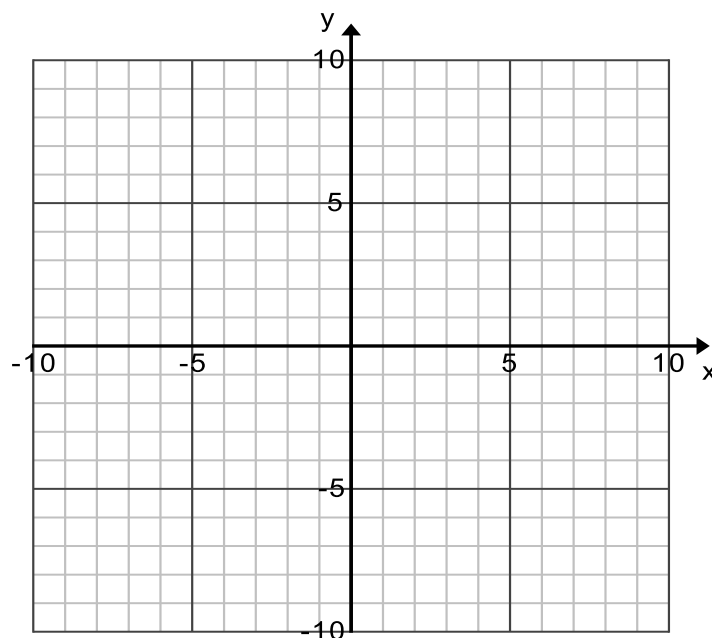
2.

Example 1: The following lines are **parallel**.
Circle the piece of the equation that lets us
know they are parallel:

$$y = -2x + 5$$

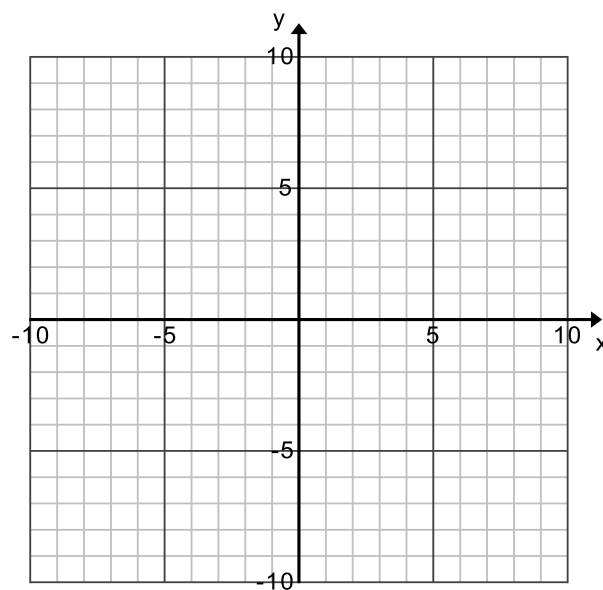
$$y = -2x - 4$$

Graph both lines on the grid to the right.



Example 2: Graph the line $y = \frac{2}{3}x - 3$ on the grid to the right. Then graph the line that is parallel to it that goes through the point $(-3, 4)$.

Find the equation of this line in slope intercept form:



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Perpendicular Lines are lines that

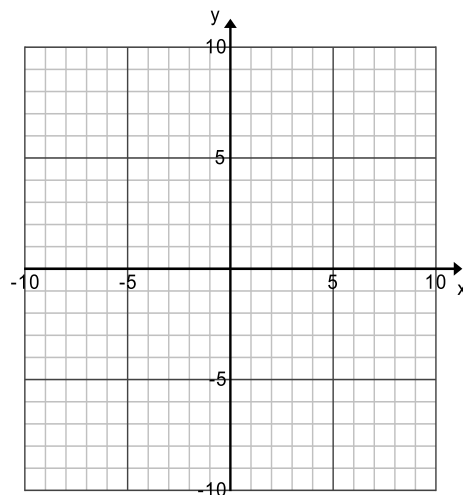
1.

2.

Example 3: Circle what makes the lines below **perpendicular**. Then graph them on the grid provided.

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

$$y = \frac{-5}{2}x + 1$$

**Example 4:** Write the negative reciprocals of the numbers below:

6

$$\frac{1}{2}$$

-4

$$\frac{-5}{9}$$

10

Example 5: Graph the line $y = -2x + 3$.

What is the slope of a line perpendicular the line above?

Graph the line perpendicular to the original line that passes through the point $(-4, 0)$.

Find the equation in slope intercept form of the graphed line.

