



$$y=4x-9$$

$$y=4x-6$$

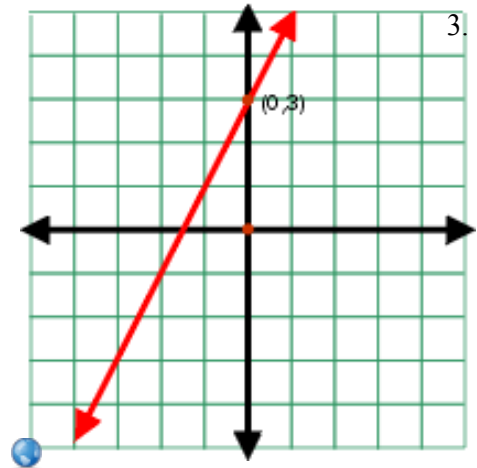
**Which lines are
parallel?
perpendicular?**

$$y=-\frac{1}{4}x-6$$

$$y=6x-6$$

$$y=\frac{1}{4}x-6$$

$$y = mx + b$$



The equation is said to be in

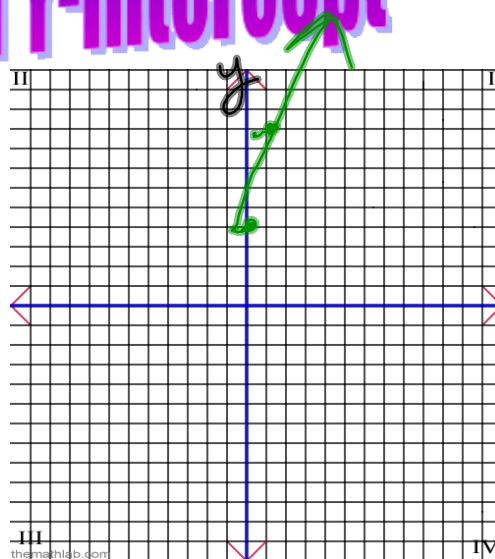
Slope-Intercept Form

- m = Slope
- b = y -intercept



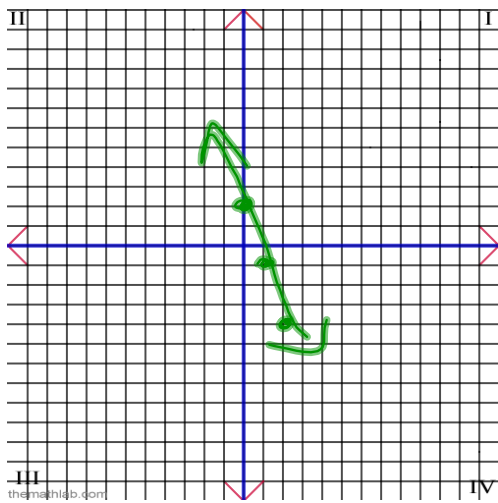
Find the Slope and Y-intercept

$$y = 5x + 4$$



Slope(m): $\frac{\text{rise}}{\text{run}}$ $\frac{5}{1}$

Start \rightarrow y-intercept(b): 4



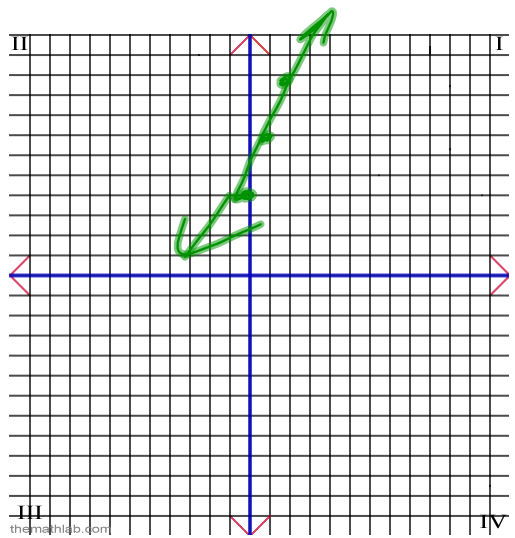
$$\begin{aligned} -y &= 3x - 2 \\ \frac{-y}{-1} &= \frac{3x}{-1} - \frac{2}{-1} \\ y &= -3x + 2 \end{aligned}$$

Slope(m): $\frac{\text{rise}}{\text{run}} = \underline{-3/1}$

y-intercept(b): $\underline{2}$

Find the slope and y-intercept, then graph

$$\frac{2y}{2} = \frac{6x}{2} + \frac{8}{2}$$
$$y = 3x + 4$$



Slope(m): 3/1

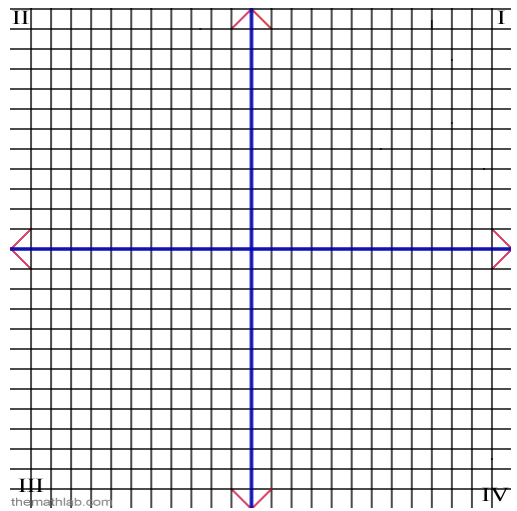
y-intercept(b): 4

Find the slope and y-intercept, then graph.

$$3y - 2 = 3x + 2 + 2$$

$$\frac{3y}{3} = \frac{3x}{3} + \frac{4}{3}$$

$$y = 1x + \frac{4}{3}$$

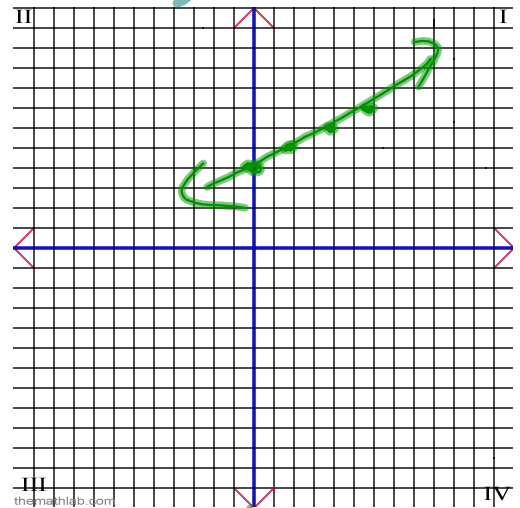


Slope(m): 1

y-intercept(b): $\frac{4}{3}$

Graph the following equation.

$$y + 3 = \frac{1}{2}x + 7 - 3$$
$$y = \frac{1}{2}x + 4$$



b) State the parallel slope of the equation.

$\frac{1}{2}$

Slope(m): $\frac{1}{2}$

y-intercept(b): 4

State the perpendicular
slope of the equation

$$2(y - 4) = 4x - 8$$

$$2y - 8 = 4x - 8 + 8$$

$$\frac{2y}{2} = \frac{4x}{2} + \frac{0}{2}$$

$$y = 2x + 0$$

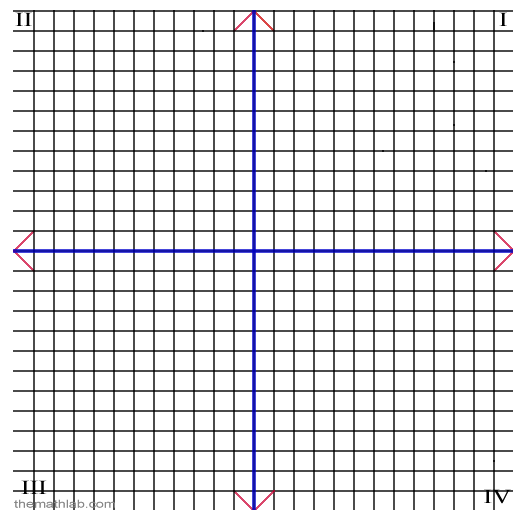
$$\frac{2}{1} = -\frac{1}{2}$$

State the perpendicular
slope of the equation

$$3(y - 2) = 5x - 8$$

State the slope and y-int, then graph.

$$3 - 5x = 3y - 6$$



b) State the perpendicular slope of the equation.

Slope(m): _____

y-intercept(b): _____

State the slope and y-int

$$\cancel{4}y + 1 = 3x + 5$$

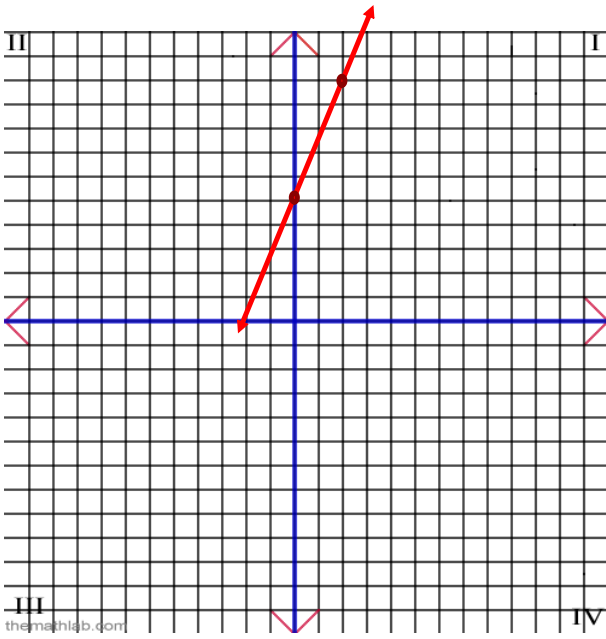
$$\cancel{3} \quad 4y + 3 = 9x + 15 - 3$$

$$\frac{4y}{4} = \frac{9x}{4} + \frac{12}{4}$$

$$y = \frac{9}{4}x + 3$$

$$\text{Slope} = \frac{9}{4}$$

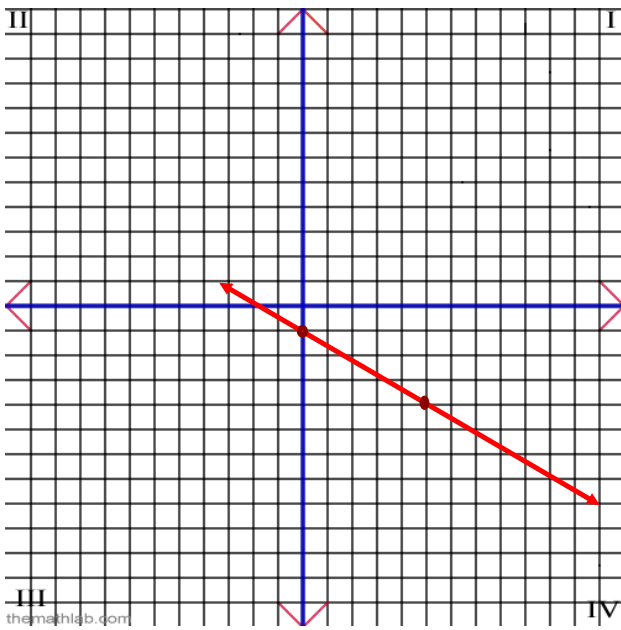
$$y\text{-int} = 3$$



Slope : _____

y-int : _____

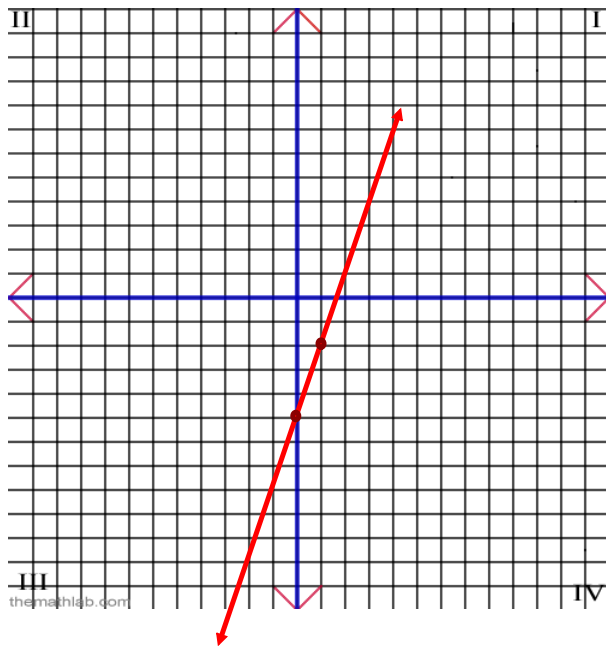
Equation: _____



Slope : _____

y-int : _____

Equation: _____



Slope : _____

y-int : _____

Equation: _____

