Slopes		Parallel	Perpendicular
3/2	6/4 $\frac{3}{2}$	✓	
-5/8	-8/5	Neither	
2 10/5	2	✓	
$\frac{-20}{1}$	2/40 $\frac{1}{20}$		✓
3	90/30 = 3	✓	

$y=4x-9$

$y=4x-6$

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

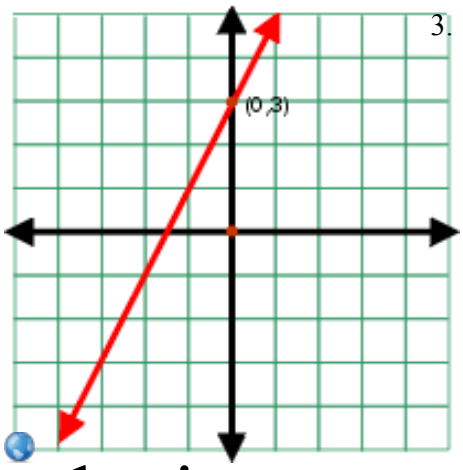
Which lines are parallel? perpendicular?

Slope :)

$y=6x-6$

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

$$y = mx + b$$



The equation is said to be in

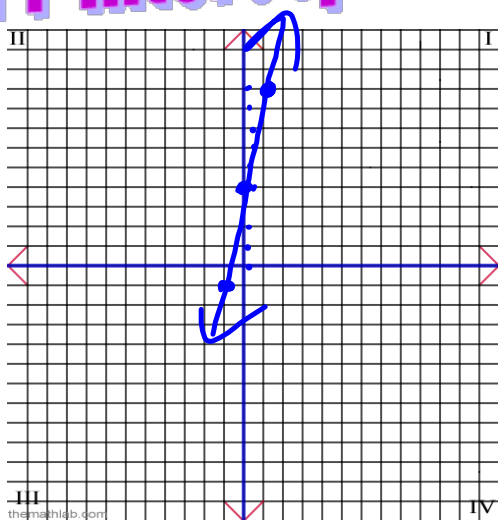
Slope-Intercept Form

- m = Slope
- b = y-intercept

Find the Slope and Y-intercept

$y = 5x + 4$

$y = mx + b$



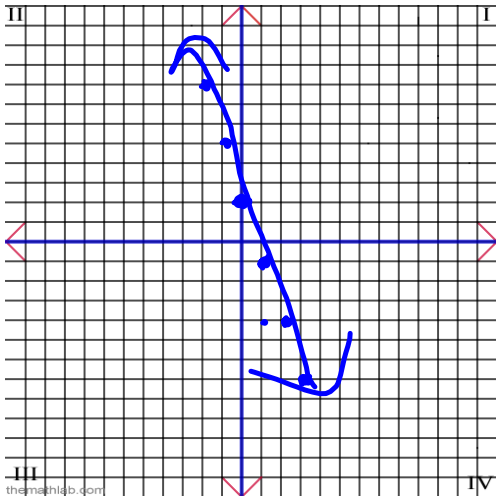
$\frac{-5}{-1}$

Slope(m): 5/1 rise/run

y-intercept(b): 4

$$-y = 3x - 2$$

$$y = -3x + 2$$



$\frac{3}{-1}$

Start

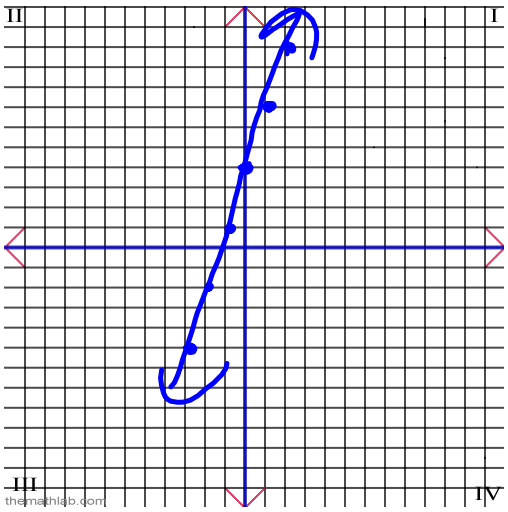
Slope(m): $-3/1$

y-intercept(b): 2

Find the slope and y-intercept, then graph

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

$y = 3x + 4$



$\frac{-3}{-1}$

Slope(m): 3/1

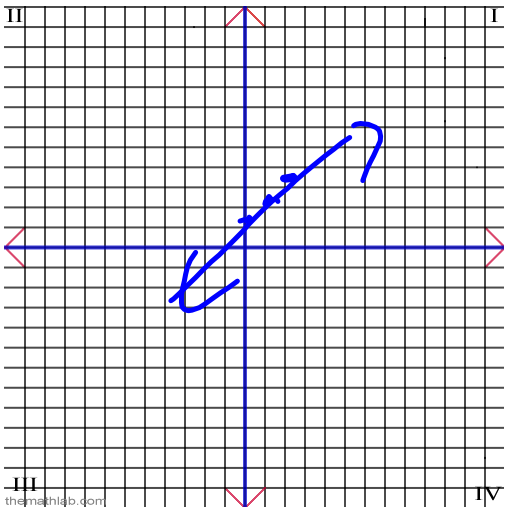
y-intercept(b): 4

Find the slope and y-intercept, then graph.

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

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

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



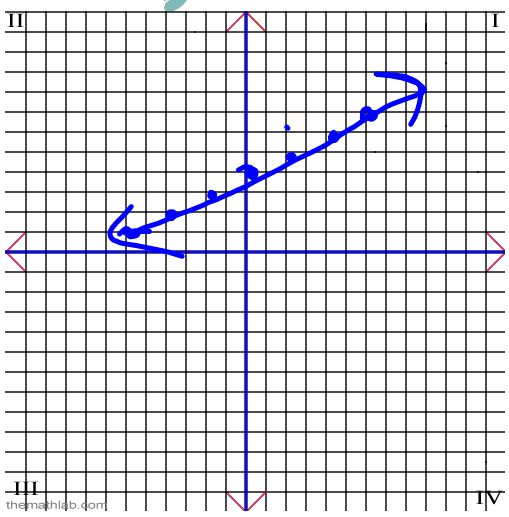
Slope(m): 1/1

y-intercept(b): 4/3

Graph the following equation.

$y + 3 = 1/2x + 7$ −3

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



b) State the parallel slope of the equation.

$= 1/2$

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

Slope(m): 1/2

y-intercept(b): 4

State the perpendicular slope of the equation

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

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

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

$y = 2x + 0$

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

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

State the perpendicular slope of the equation

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

$3y - 6 = 5x - 8 + 6$

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

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

$m = \frac{5}{3}$

$Per = -\frac{3}{5}$

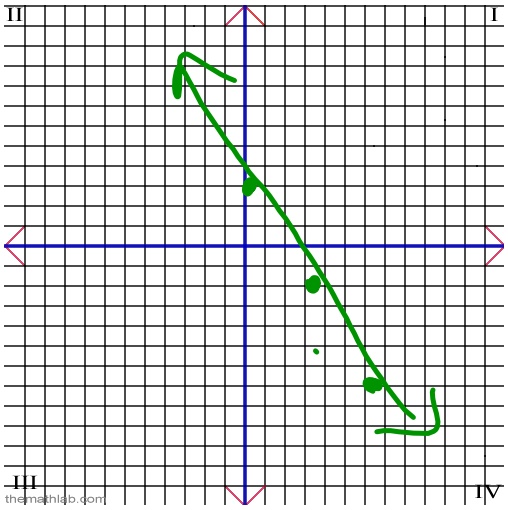
State the slope and y-int, then graph.

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

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

$\frac{3y}{3} = \frac{-5x}{3} + \frac{9}{3}$

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



b) State the perpendicular slope of the equation.

$\frac{+3}{5}$

Slope(m): $\frac{-5}{+3}$ or $\frac{+5}{-3}$

y-intercept(b): 3

State the slope and y-int

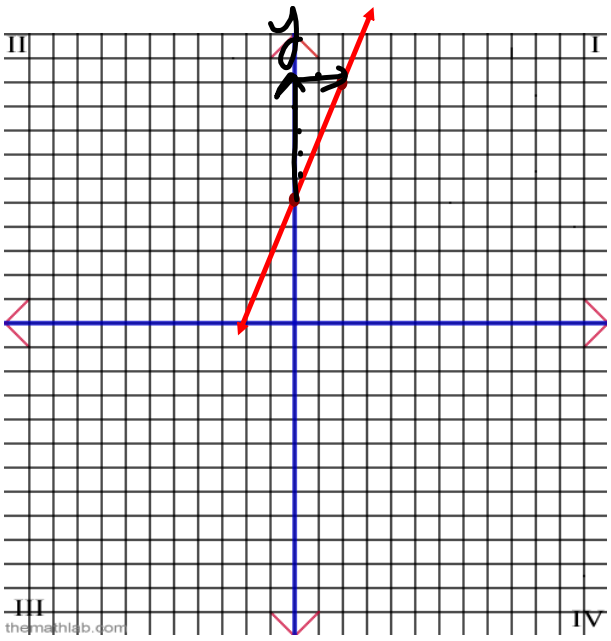
$$\frac{4}{3}y + 1 = 3x + 5$$

$\times 3$ $\times 3$ $\times 3$ $\times 3$

$$4y + 3 = 9x + 15 - 3$$

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

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

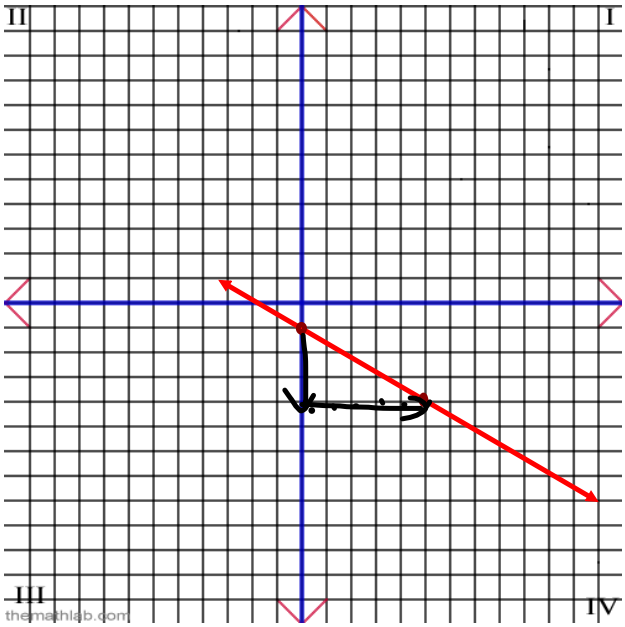


Slope : $5/2$

y-int : 5

Equation: $y = mx + b$

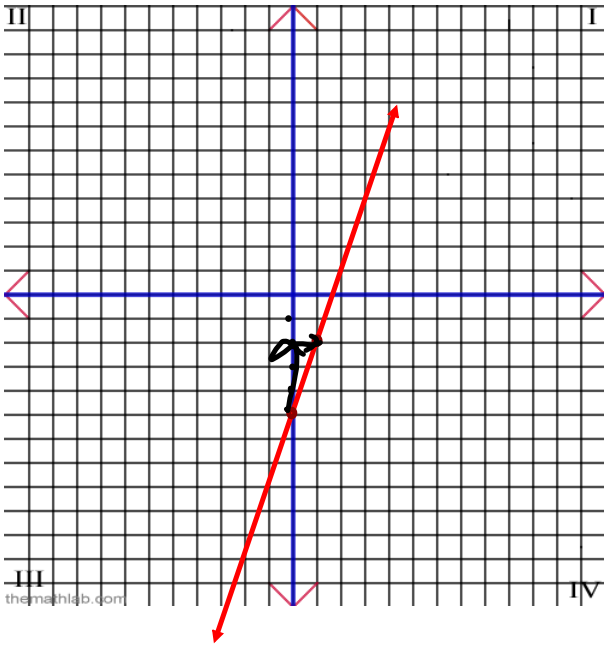
$y = \frac{5}{2}x + 5$



Slope : $-\frac{3}{5}$

y-int : -1

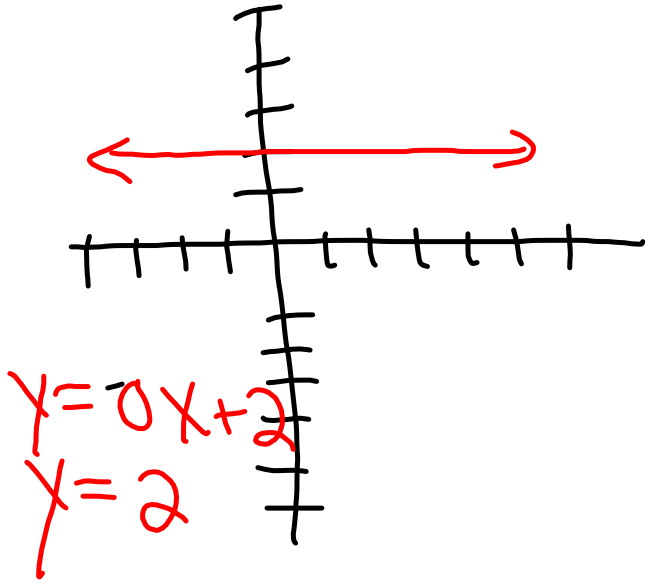
Equation: $y = -\frac{3}{5}x - 1$

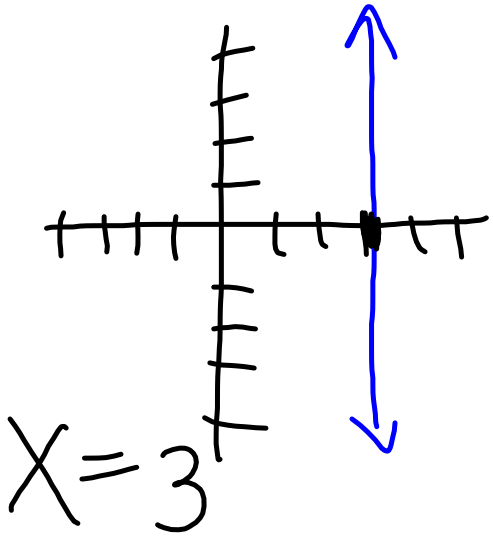


Slope : $3/1 = 3$

y-int : -5

Equation: $y = 3x - 5$


y=0x+2
y=2


x=3