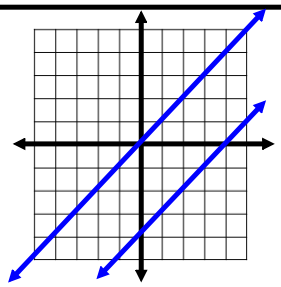
Alg 1

4-4 Parallel & Perpendicular Lines

Parallel Lines

1.

2.



Example 1 - Parallel Lines through a Given Point

Write the slope-intercept form of the equation for the line that passes through (-1, -2) and is parallel to the graph of $y = -3x - 2$

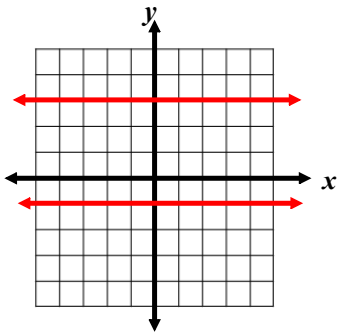
(Hint: You are given slope and a point on the line)

Write the slope-intercept form of the equation for the line that passes through (4, -2) and is parallel to the graph of $y = \frac{1}{2}x - 4$

Horizontal Lines

All horizontal lines a parallel to each other!!!!

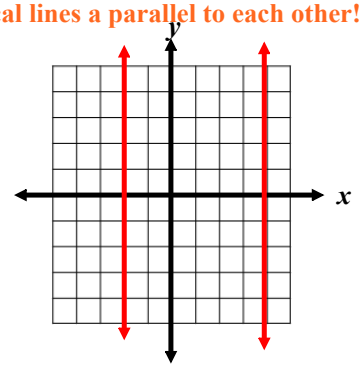
Write the equation of a line that passes through (2, -1) and is parallel to $y = 3$



Vertical Lines

All vertical lines a parallel to each other!!!!

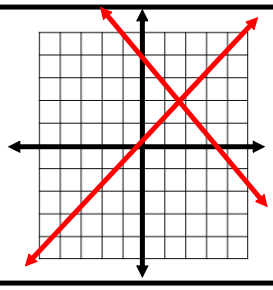
Write the equation of a line that passes through (4, -3) and is parallel to $x = -2$



Perpendicular Lines

1.

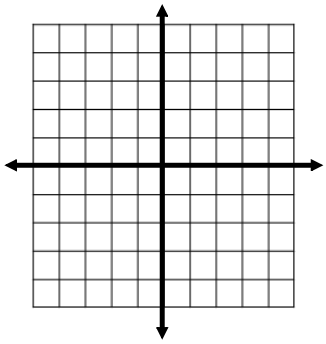
2.



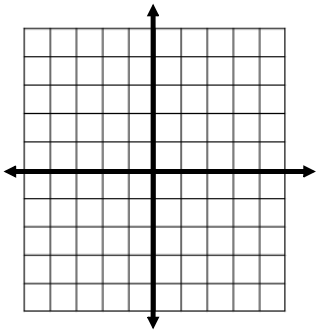
Horizontal Lines are perpendicular to vertical Lines

Example : Perpendicular line through a given point

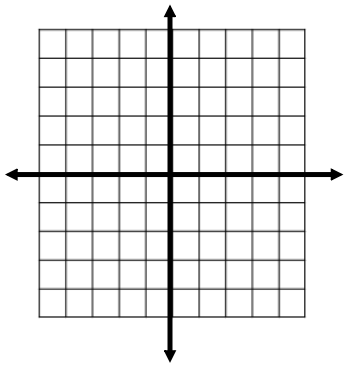
Write the slope-intercept form for an equation of the line that passes through (-3, -2) and is perpendicular to the graph of $x + 4y = 12$



Write the slope-intercept form for an equation of the line that passes through (4, -1) and is perpendicular to the graph of $7x - 2y = 3$



Write the slope-intercept form for an equation of the line that passes through (0,6) and is perpendicular to the graph of $2y + 5x = 2$



Write the slope-intercept form for an equation of the line perpendicular to the graph of $y = \frac{-1}{3}x + 2$ and passes through the x-intercept of that line

Check it on your calculator!