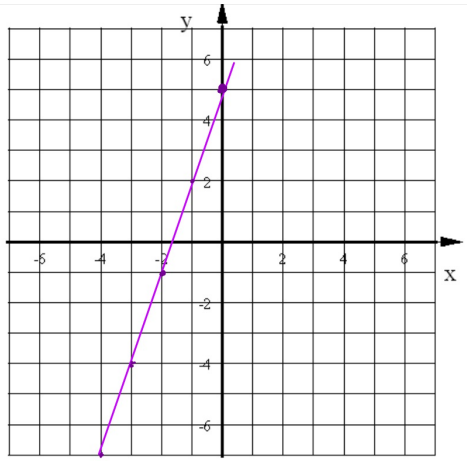
Get a sheet of graph paper and a ruler.

Graphing Lines written in any form.

Graph each line.

1. $y = 3x + 5$

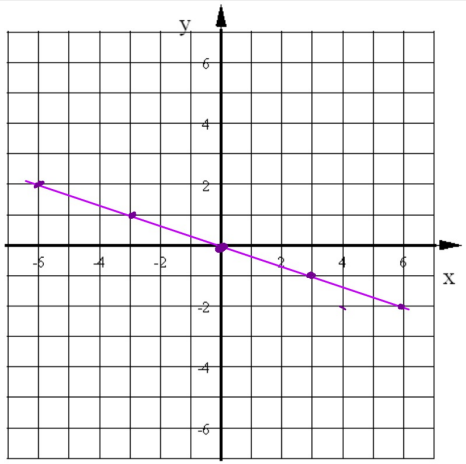
Slope-Intercept Form



2. $y = -\frac{1}{3}x$

Slope-Intercept Form

The y-intercept is 0.



3. $y + 3 = \frac{1}{2}(x - 2)$

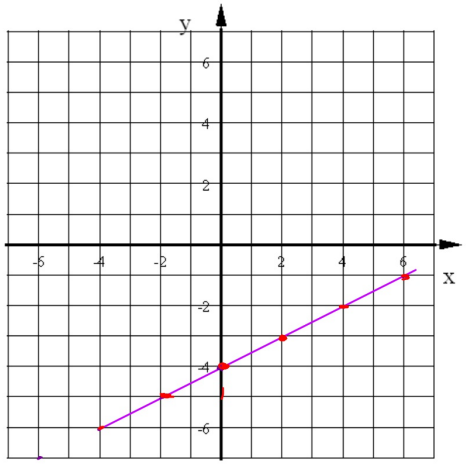
Point-Slope Form

You could rewrite this into Slope-Intercept Form and graph

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

Or you could use the equation to find a point and the slope then use these to graph the line

$(2, -3)$ $m = \frac{1}{2}$



4. $y - 3 = 4(x + 5)$

Point-Slope Form

If you change this to Slope-Intercept Form the y-intercept won't fit.

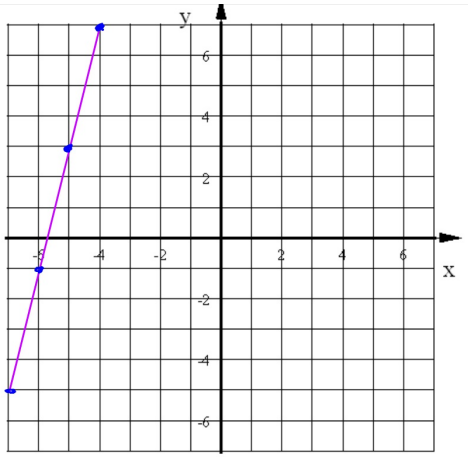
$y - 3 = 4x + 20$

$+3 \quad +3$

$y = 4x + 23$

Therefore use the equation to find a point and the slope then use these to graph.

$(-5, 3) \quad m = \frac{4}{1}$



5. $18x - 9y = 36$

$-18x \quad -18x$

Standard Form

$\frac{-9y}{-9} = \frac{36 - 18x}{-9} \quad \frac{}{-9} \quad \frac{}{-9}$

$y = 2x - 4$

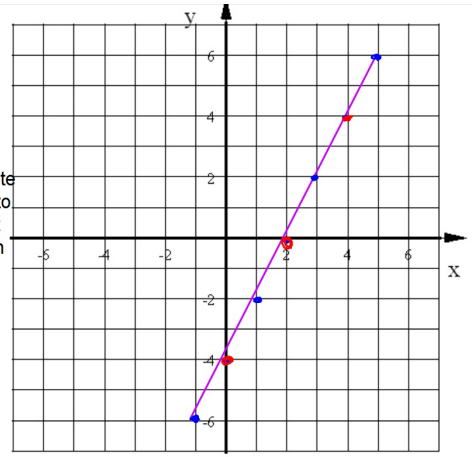
You could rewrite the equation into Slope-Intercept Form and graph

OR

You could find the x&y intercepts and graph

$x = 2$ ← x-int

$y = -4$ ← y-int



6. $3x + 4y = 8$

Standard Form

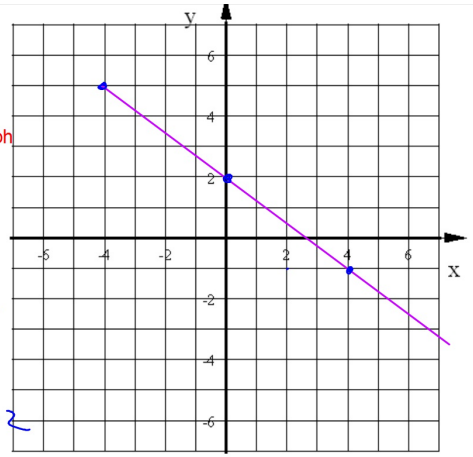
You could find the x and y intercepts to graph but the x-intercept would have to be estimated.

x-int $= \frac{8}{3}$

y-int $\frac{8}{4} = 2$

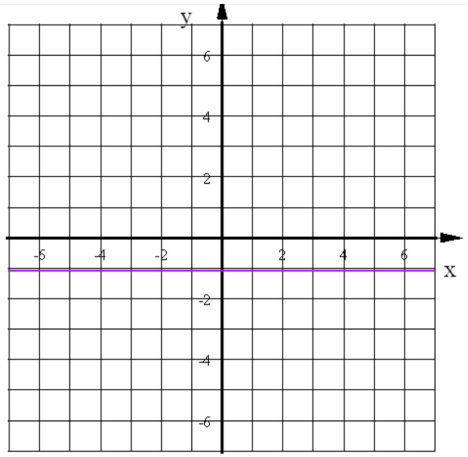
therefore, write the equation in Slope-Intercept Form and graph.

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



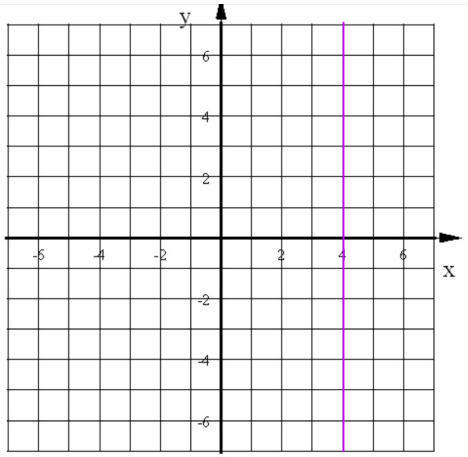
7. $y = -1$

Horizontal Line



8. $x = 4$

Vertical Line

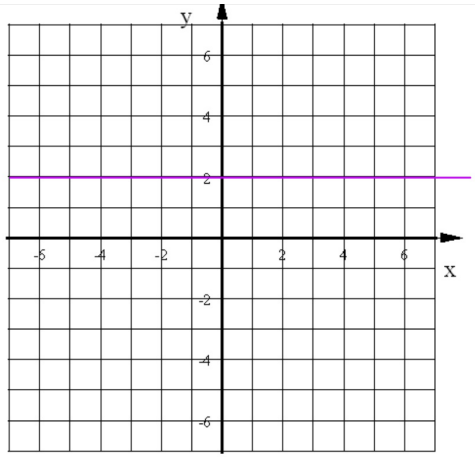


9. $7y = 14$

divide both sides by 7

y = 2

Horizontal Line



You can now do Hwk #28

Practice Sheet - graphing lines.

4x + 6y = 16

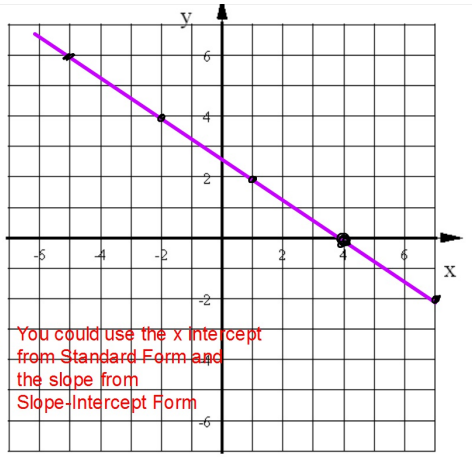
$-4x \quad -4x$

$\frac{6y}{6} = \frac{16 - 4x}{6}$

$y = \frac{8}{3} - \frac{2}{3}x$

X-INT $\frac{16}{4} = 4$

Y-INT $\frac{16}{6} = 8/3$



You could use the x intercept from Standard Form and the slope from Slope-Intercept Form