Name: _____ Date: _____

Day 4 - Graphing Using Slope Intercept Form (y = mx + b)

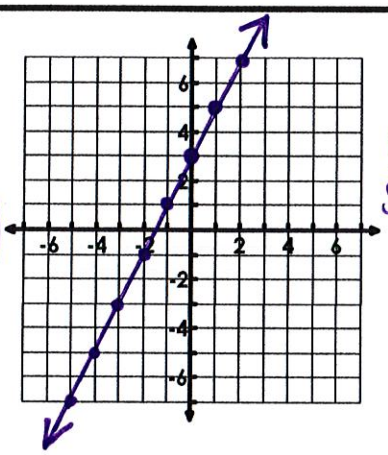
Steps

1. Solve for slope-intercept form: y = mx + b.
2. Graph the y-intercept(b)
3. Use the slope(m) to find the next points.
4. Use the points to draw a line!

1. $y = 2x + 3$

y-int: (0,3)

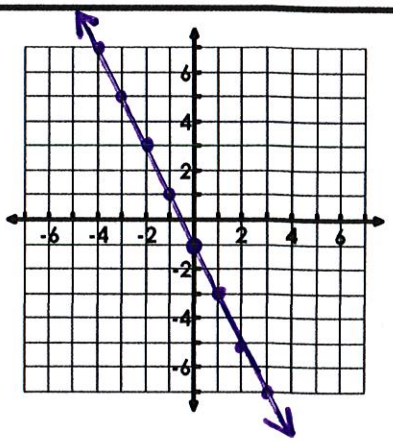
Slope: $\frac{2}{1}$ (up 2 / right 1)



2. $y = -2x - 1$

y-int: (0,-1)

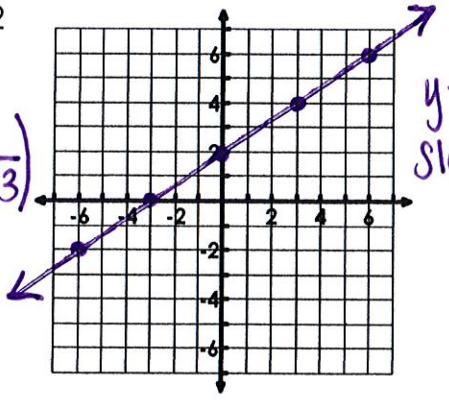
Slope: $\frac{-2}{1}$ (down 2 / right 1)



3. $y = \frac{2}{3}x + 2$

y-int: (0,2)

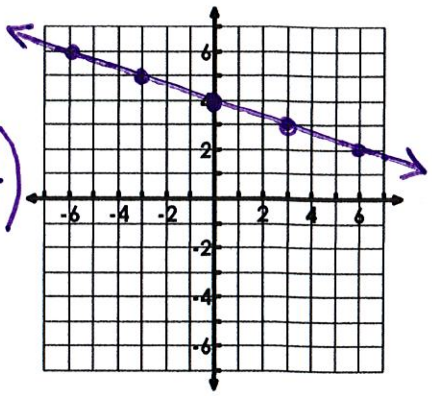
slope: $\frac{2}{3}$ (up 2 / right 3)



4. $y = -\frac{1}{3} + 4$

y-int: (0,4)

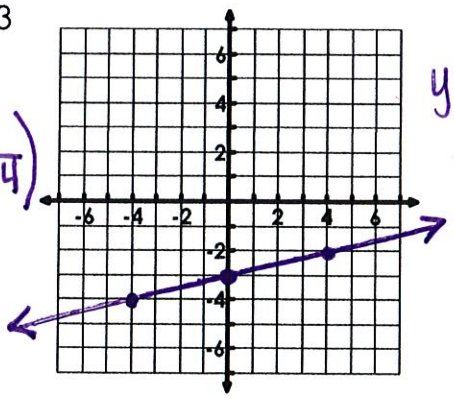
slope: $\frac{-1}{3}$ (down 1 / right 3)



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

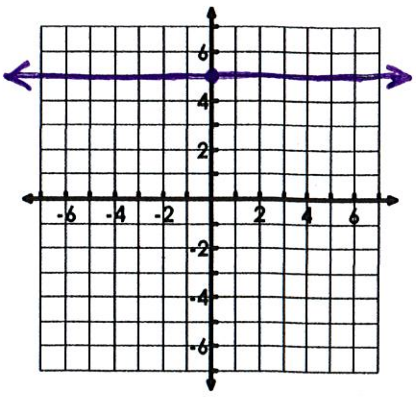
y-int: (0,-3)

Slope: $\frac{1}{4}$ (up 1 / right 4)



6. $y = 5$

y-int: (0,5)



7. $4x + 2y = -6$

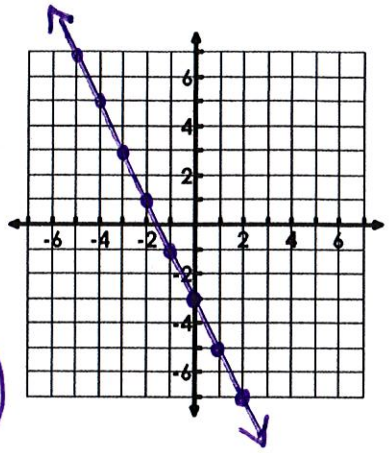
$-4x \quad -4x$

$\frac{2y}{2} = \frac{-4x}{2} - \frac{6}{2}$

$y = -2x - 3$

y-int: $(0, -3)$

Slope: $\frac{-2}{1}$ $\left(\frac{\text{down } 2}{\text{right } 1}\right)$



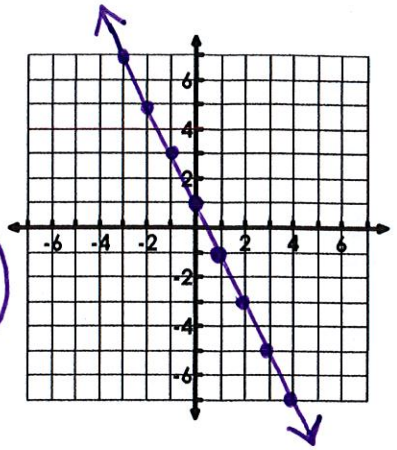
8. $2x + y = 1$

$-2x \quad -2x$

$y = -2x + 1$

y-int: $(0, 1)$

Slope: $\frac{-2}{1}$ $\left(\frac{\text{down } 2}{\text{right } 1}\right)$



9. $9x - 3y = -6$

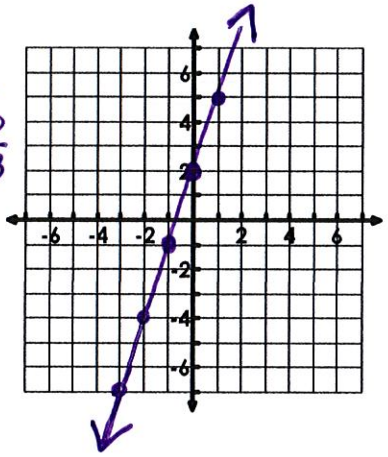
$-9x \quad -9x$

$\frac{-3y}{-3} = \frac{-9x}{-3} - \frac{6}{-3}$

$y = 3x + 2$

y-int: $(0, 2)$

Slope: $\frac{3}{1}$ $\left(\frac{\text{up } 3}{\text{right } 1}\right)$



10. $5x + 10y = 20$

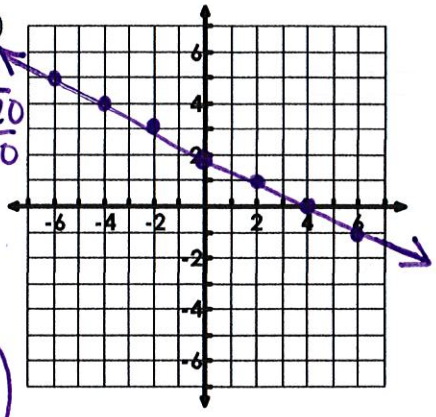
$-5x \quad -5x$

$\frac{10y}{10} = \frac{-5x}{10} + \frac{20}{10}$

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

y-int: $(0, 2)$

Slope: $\frac{-1}{2}$ $\left(\frac{\text{down } 1}{\text{right } 2}\right)$



11. $2x - 3y = -9$

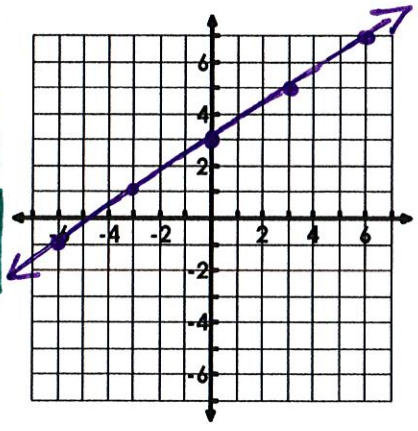
$-2x \quad -2x$

$\frac{-3y}{-3} = \frac{-2x}{-3} - \frac{9}{-3}$

$y = \frac{2}{3}x + 3$

y-int: $(0, 3)$

Slope: $\frac{2}{3}$ $\left(\frac{\text{up } 2}{\text{right } 3}\right)$



12. $2x - 4y = -8$

$-2x \quad -2x$

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

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

y-int: $(0, 2)$

Slope: $\frac{1}{2}$ $\left(\frac{\text{up } 1}{\text{right } 2}\right)$