Name: _____ Date: _____

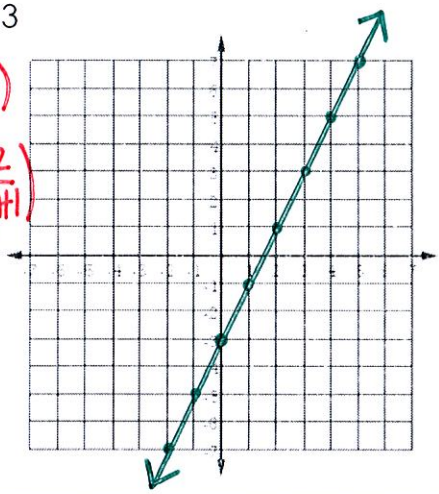
Day 2 - Graphing Using Slope Intercept Form (y = mx + b)

Write the equation in standard form, $y = mx + b$, if not done already. Graph the equation.

1. $y = 2x - 3$

y-int: (0,-3)

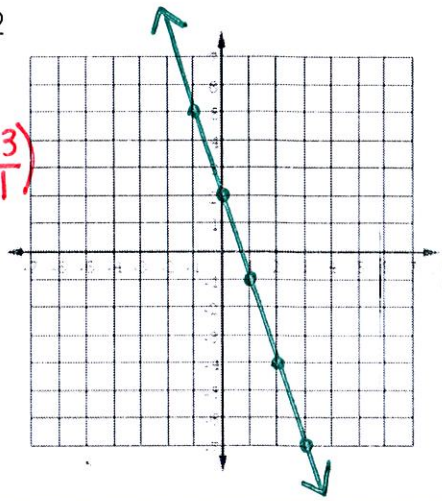
slope: $\frac{2}{1}$ $\left(\frac{\text{up } 2}{\text{right } 1}\right)$



2. $y = -3x + 2$

y-int: (0,2)

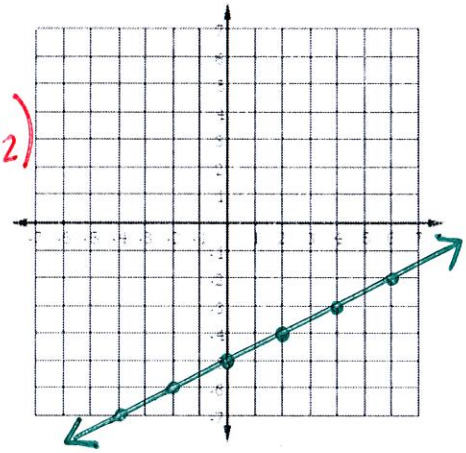
slope: $\frac{-3}{1}$ $\left(\frac{\text{down } 3}{\text{right } 1}\right)$



3. $y = \frac{1}{2}x - 5$

y-int: (0,-5)

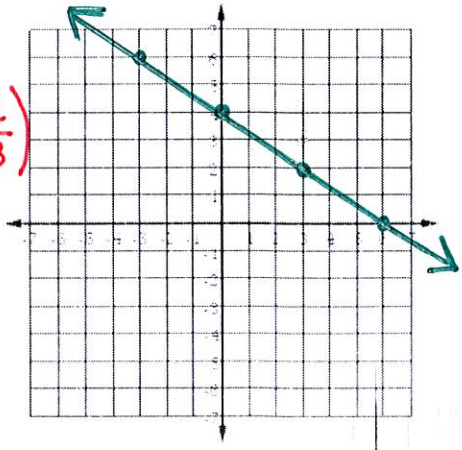
slope: $\frac{1}{2}$ $\left(\frac{\text{up } 1}{\text{right } 2}\right)$



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

y-int: (0,4)

slope: $\frac{-2}{3}$ $\left(\frac{\text{down } 2}{\text{right } 3}\right)$



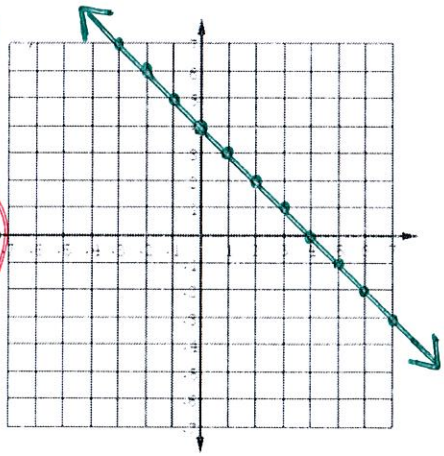
5. $\cancel{x} + y = 4$

$-\cancel{x} \quad -x$

$y = -x + 4$

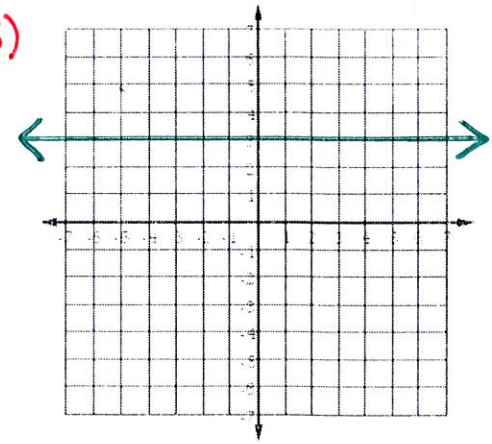
y-int: (0,4)

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



6. $y = 3$

y-int: (0,5)



7. $2x - y = 3$

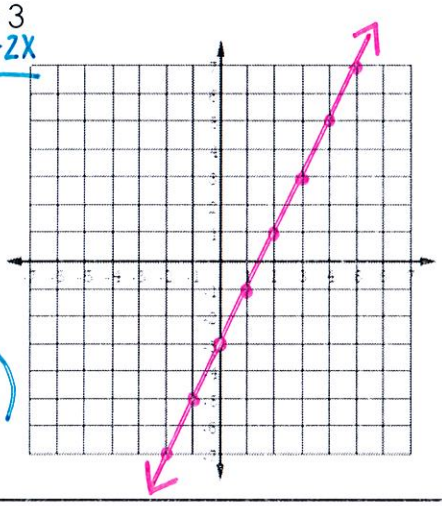
$-2x \quad -2x$

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

$y = 2x - 3$

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

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



8. $2x + 4y = 8$

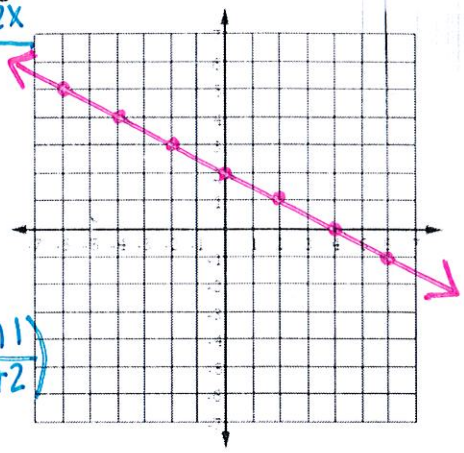
$-2x \quad -2x$

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

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

y-int: $(0, 2)$

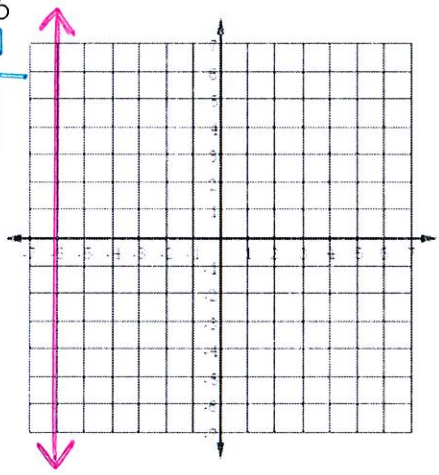
slope: $\frac{-1}{2}$ $\left(\frac{\text{down } 1}{\text{right } 2}\right)$



9. $x + 1 = -5$

$-1 \quad -1$

$x = -6$



10. $3x - 5y = 10$

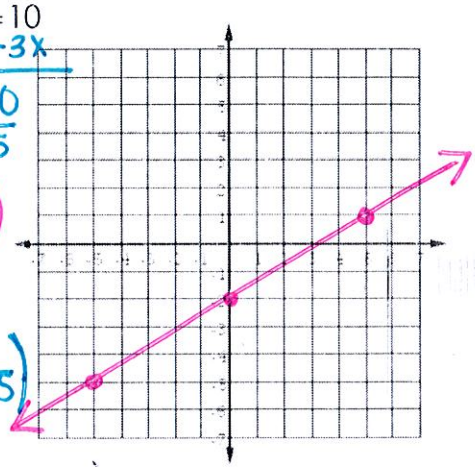
$-3x \quad -3x$

$\frac{-5y}{-5} = \frac{-3x}{-5} + \frac{10}{-5}$

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

y-int: $(0, -2)$

slope: $\frac{3}{5}$ $\left(\frac{\text{up } 3}{\text{right } 5}\right)$



11. $3x + 2y = 7$

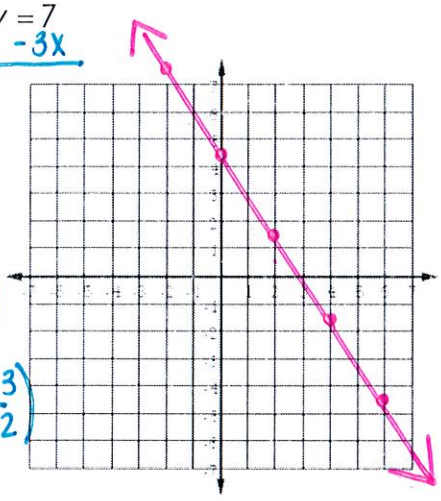
$-3x \quad -3x$

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

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

y-int: $(0, 7/2)$

slope: $\frac{-3}{2}$ $\left(\frac{\text{down } 3}{\text{right } 2}\right)$



12. $3x - \frac{1}{2}y = 2$

$-3x \quad -3x$

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

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

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

$y = 6x - 4$

y-int: $(0, -4)$

slope: $\frac{6}{1}$ $\left(\frac{\text{up } 6}{\text{right } 1}\right)$