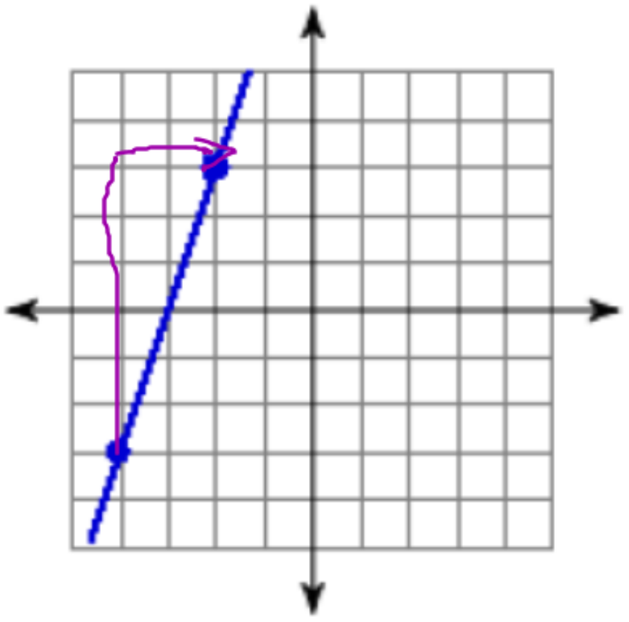
# Mathematics 10D

## 1.0 – Slope, Graphing and Equations

Mr. D. Hagen

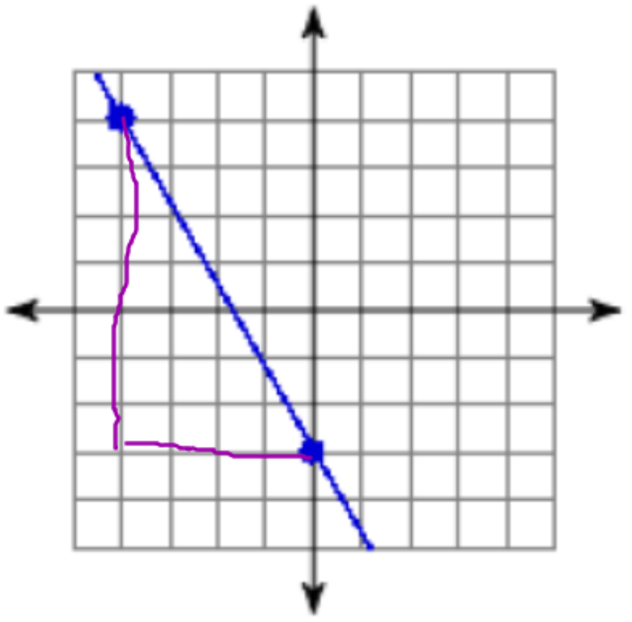
**Find the slope of each line.**

1)



$m = \frac{\text{Rise}}{\text{Run}} = \frac{\text{y's}}{\text{x's}} = \frac{6}{2} = 3$

2)



$m = -\frac{7}{4}$

**Find the slope of the line through each pair of points.**

3) $(-15, 18), (-8, 4)$

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{4 - 18}{-8 + 15}$$

$$= \frac{-14}{7} = -2$$

4) $(-2, -2), (1, -19)$

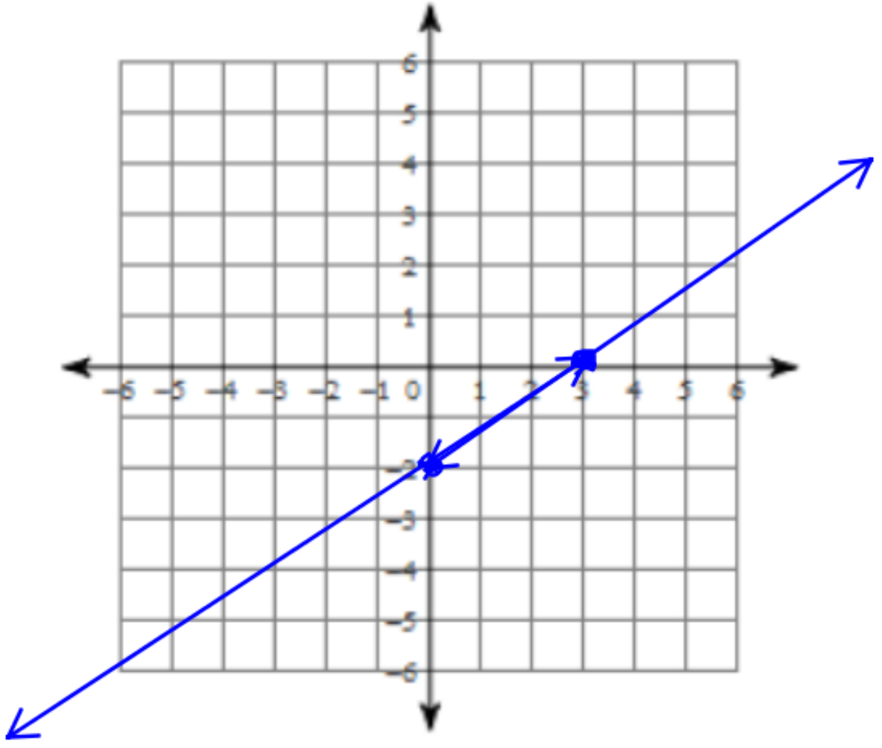
$$m = \frac{-19 + 2}{1 + 2}$$

$$= \frac{-17}{3}$$

**Sketch the graph of each line.**

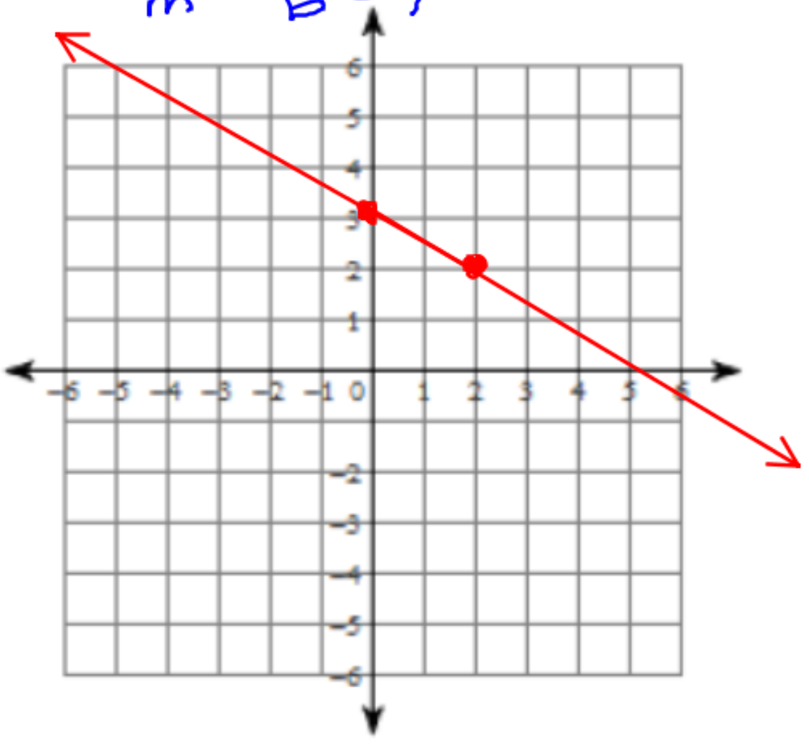
slope intercept

5) x-intercept = 3, y-intercept = −2

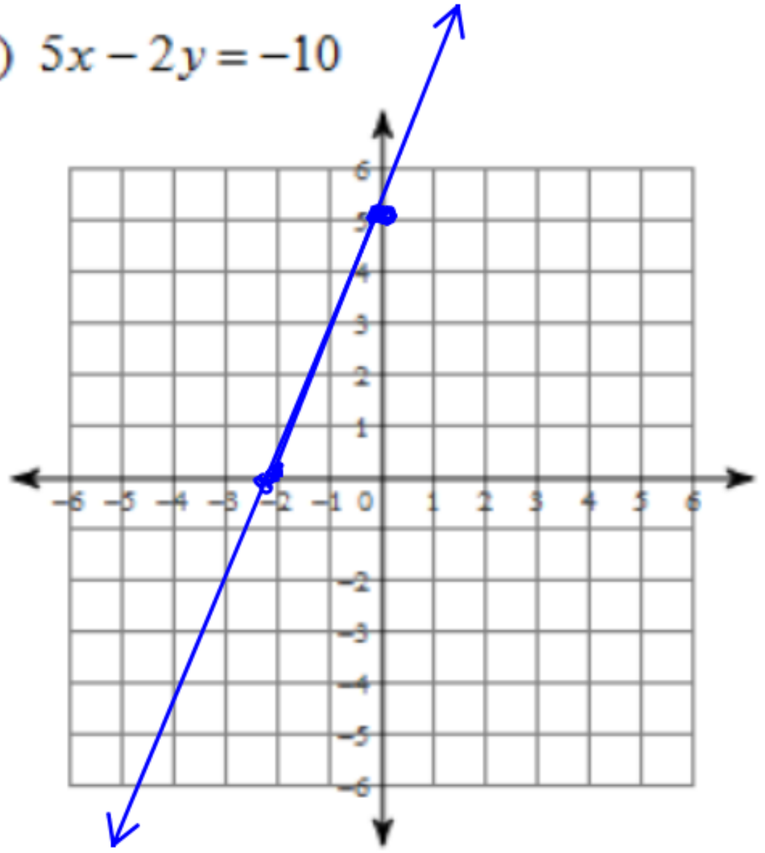


6) $y = -\frac{1}{2}x + 3$

m b = y-int



7) $5x - 2y = -10$



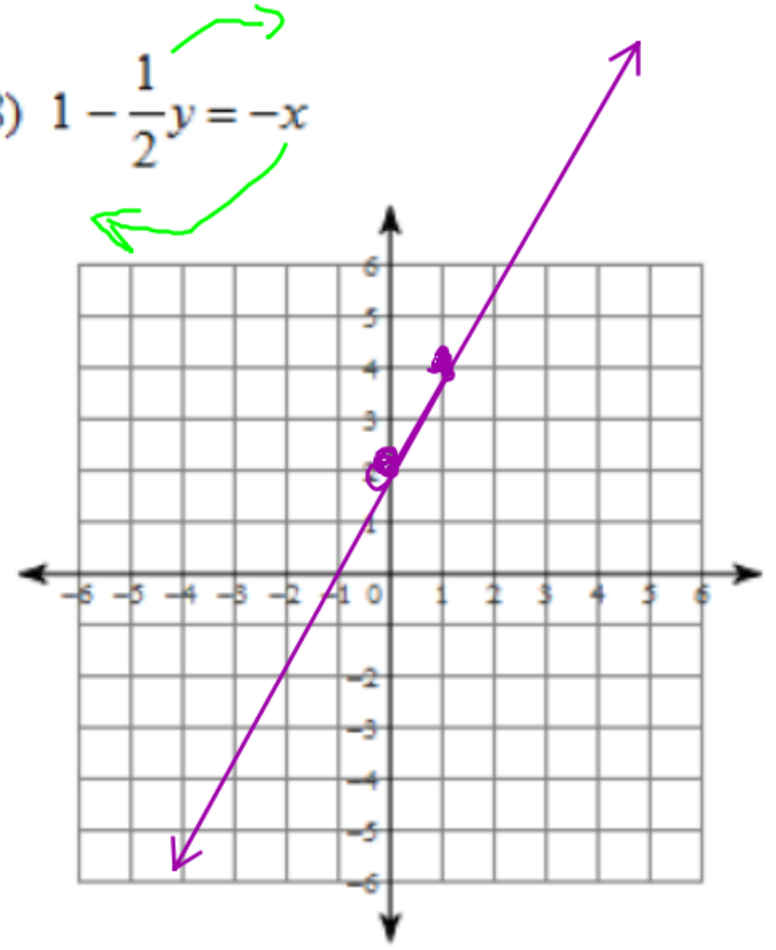
y-int: $-2y = -10$

$y = 5$

x-int: $5x = -10$

$x = -2$

8) $1 - \frac{1}{2}y = -x$



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

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

9) $3 + 8x = 107$

$-3 \qquad -3$

$\frac{8x}{8} = \frac{104}{8}$

$x = 13$

10) $\frac{k+2}{4} = 1$

$k + 2 = 4$

$k = 2$

11) $8x + 4(7x - 3) = -84$

$8x + 28x - 12 = -84$

$36x = -72$

$x = -2$

12) $-2(1 - 3x) = 6x - 2(1 + x)$

$-2 + 6x = 6x - 2 - 2x$

$2x = 0$

$x = 0$