

# Module 5 Review Solutions

1. a.)  $(0, 4), (2, 1) \rightarrow m = \frac{1-4}{2-0} = \left(\frac{-3}{2}\right)$  b.)  $(0, 4)$

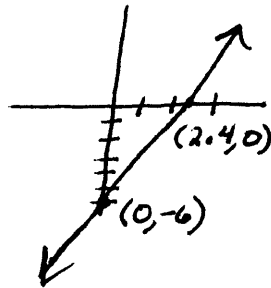
c.)  $(2, 7, 0)$  d.)  $y = mx + b \rightarrow y = \frac{-3}{2}x + 4$

X	Y
-2	-11
0	-6
2	-1
4	4

$$5x - 2y = 12$$

$$\frac{-2y}{-2} = \frac{-5x + 12}{-2}$$

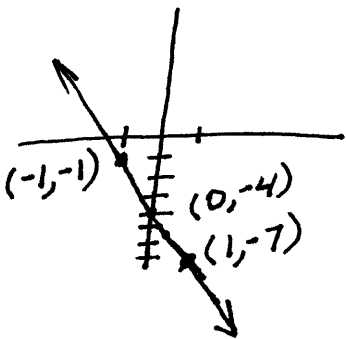
$$y = \frac{5}{2}x - 6$$



$$m = \frac{4 - (-1)}{4 - 2}$$

$$m = \frac{5}{2}$$

3.  $y = -3x - 4$



4.  $6x - 3y = 12$

$x_{int} \rightarrow 6x - 3(0) = 12$

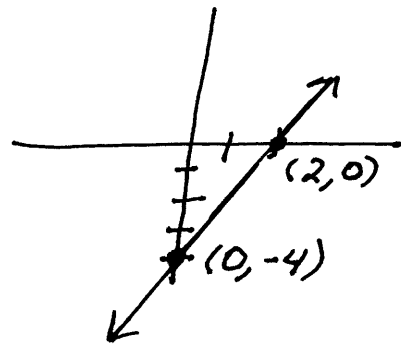
$$6x = 12$$

$$x = 2$$

$y_{int} \rightarrow 6(0) - 3y = 12$

$$-3y = 12$$

$$y = -4$$



5.  $x$ : # hrs. tutoring  
 $y$ : # hrs. babysitting

a.)  $25x + 10y \geq 900$

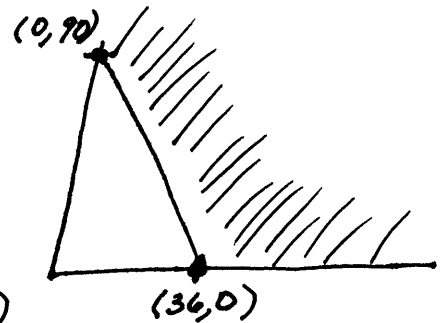
$x_{int} \rightarrow 25x = 900$

$$x = 36$$

$y_{int} \rightarrow 10y = 900$

$$y = 90$$

c.) Three possible solutions:  $(36, 0), (0, 90), (37, 0)$

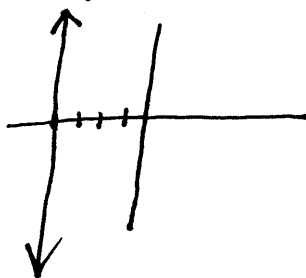


6. A, C, F

8 a.)  $2x + 8 = 0$

$$2x = -8$$

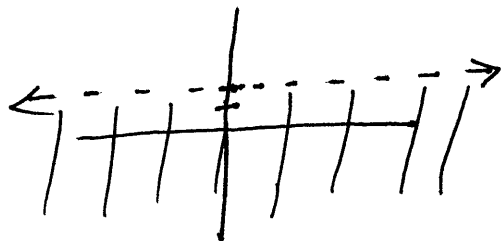
$$x = -4$$



b.)  $-3y + 6 > 0$

$$\frac{-3y}{-3} > \frac{-6}{-3}$$

$$y < 2$$



7.  $3x + 2y = 7$

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

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

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

since slopes are negative reciprocals lines are perpendicular