

Algebra 201-007-50 03

Quiz 3

September 12, 2008

Name: SOLUTIONS

Student Number:

1. (6 points) Find the x -intercept and y -intercept (indicate which is which) and use them to graph the following linear equation:

$$2x - 3y = 6$$

$$x\text{-int: } y = 0$$

$$2x - 3(0) = 6$$

$$2x = 6$$

$$x = 3$$

$\therefore (3, 0)$ IS THE
 $x\text{-int}$

$$y\text{-int: } x = 0$$

$$2(0) - 3y = 6$$

$$-3y = 6$$

$$y = -2$$

$\therefore (0, -2)$ IS THE
 $y\text{-int}$

2. (2 points) Find the slope of the line that passes through the points $(-4, 3)$ and $(2, 2)$.

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{(2) - (3)}{(2) - (-4)} = \frac{-1}{6}$$

3. (6 points) Find the ~~point-slope~~ ^{slope-intercept} form of the line that passes through the point $(-2, 10)$ has slope -3 .

$$y = mx + b$$

$$10 = -3(-2) + b$$

$$10 = 6 + b$$

$$10 - 6 = b$$

$$4 = b$$

$$\therefore y = -3x + 4$$