

# Algebra 201-007-50 C2

## Quiz 3

September 10, 2008

Name: SOLUTIONS

Student Number:

1. (4 points) Solve for  $x$  and give the solution graph and solution set (indicate which is which).

$$5 \leq 1 - 2x \leq 11$$

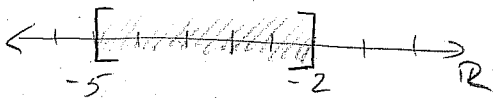
$$5 - 1 \leq -2x \leq 11 - 1$$

$$4 \leq -2x \leq 10$$

$$\frac{4}{-2} \geq \frac{-2x}{-2} \geq \frac{10}{-2}$$

$$-2 \geq x \geq -5$$

SOLUTION GRAPH:



SOLUTION SET:

$$[-5, -2]$$

2. (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  $x$ -int.

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

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

$$-3y = 6$$

$$y = -2$$

$\therefore (0, -2)$  is  $y$ -int

