

Name: _____
Date: _____
Class: _____

Algebra
Unit 5
HW 5-6

- 1) Is (3, 8) a solution to the system: $x + y > 10$
 $y \geq 3x - 5$

- 2) Graph the following system of inequalities, state one point in the solution set, and state one point not in the solution set.

$$y < -\frac{3}{2}x + 2$$

$$x \geq -2$$

- 3) Graph the following system of inequalities. Is (0, 0) a solution to the system?

$$y > \frac{2}{3}x - 2$$

$$y \leq -x + 6$$

- 4) Graph the following system of inequalities:

$$4x - 3y > 15 \quad \text{and} \quad 2y + 6x \geq 12$$

5) Solve the following system of equations:

$$2x = 2y - 11 \quad \text{and} \quad y = 16 - 6x$$

6) Steve buys 6 oranges and 4 apples from the public market and pays \$6.50. Ron buys 8 oranges and 3 apples from the same market and pays \$7.50. How much would 10 oranges 12 apples cost?

7) Is $(-2, -1)$ a solution to the following system:

$$4y + 2x = 0 \quad \text{and} \quad 10 = 3x - 16y$$