

Name: \_\_\_\_\_  
Date: \_\_\_\_\_  
Class: \_\_\_\_\_

Algebra  
Unit 5  
HW 5-2

1) Solve the following system using substitution:

$$4x - 2y = 16 \qquad y = -5x + 13$$

2) Two cell phone plans are set up in the following manner: Plan A charges a flat rate of \$25 per month plus \$5 for each gig of data used. Plan B charges a flat rate of \$20 per month plus \$6 for each gig of data. Write an equation for each plan ( $y$  is dollars,  $x$  is gigs of data) and solve the system using substitution.

3) Is  $(-2, 3)$  a solution to the following system of equations?

$$10x + 3y = -11 \qquad 6y = 26 - 4x$$

4) Solve the following system of equations graphically:

$$3x - 6y = 15 \qquad 2x + 2y = 16$$

5) Solve the following system of equations using whatever method you would like:

$$2x - 3y = 6 \qquad 6y = 4x - 12$$

6) If (3, -1) is a solution to the following system of equations, what would the value of k in the 2<sup>nd</sup> equation be?

$$4y - 3x = -13 \qquad 4x = 6y + k$$

7) Solve the following system using whichever method you wish:

$$3x = 5y - 1 \qquad 9x + 10y = 7$$