Algebra 2 Bellwork Wednesday, October 8, 2014

1. Use a sheet of graph paper to solve this system of equations by graphing.

y = -3x - 5 4x - 8y = -16

2. Without graphing give the number of solutions to each system of linear equations.

a. 
$$4x + 6y = 20$$
  
 $-10x - 15y = -50$ 

b. 
$$8x + 4y = 40$$
$$6x - 12y = -120$$

3. Solve each system of equations using either Substitution or Elimination. Don't use the same method twice.

a. 
$$9P - 8Q = -11$$
  
 $4P - 5Q = -2$ 

b. 
$$10x + 4y = -25$$
  
  $7x - y = -27$ 

4. On Sunday Mr. Warren took his family to the game. Bags of peanuts cost \$2.29 each and cotton candy cost \$3.49 each. He bought some of each and spent \$19.63. Mr. Warren took his family to the game the following Sunday and the prices went up to \$2.59 for a bag of peanuts and \$3.99 for cottone candy. He bought the same amount of each and spent \$22.33. Write and solve a system of equations to find the number of bags of peanuts and the number of cotton candies purchased each day.