SM2-A HW #6-12 (Review solving systems of equations)

1) $y = -3x - 5$
   $y = 6x - 5$

2) $y = 6x - 4$
   $y = -8x + 24$

Solve each system by graphing.

3) $-4x - 2y = -20$
   $4x - 3y = 20$

4) $4x + 4y = 8$
   $-4x - 2y = -8$

5) One order at "In-n-Out Burger" had 7 hamburgers and 9 large milkshakes. The total cost (without tax) was $54.50. Another order had 11 hamburgers and 13 milkshakes. The total cost (without tax) was $82.50. Let x = cost of a hamburger, y = cost of a milkshake

   (a) Write two equations that relate the total cost of the order to the number/cost of the hamburgers and drinks.

   (b) Solve the sytem of equations by graphing. What is the cost of a hamburger? What is the cost of a milkshake?

6) One order at "Joe's Pizza Bar" had 8 large pizzas and 6 small pizzas. The total cost (without tax) was $169.50. Another order had 5 large pizzas and 8 small pizzas. The total cost (without tax) was $149.50. Let x = cost of a large pizza, y = cost of a small pizza

   (a) Write two equations that relate the total cost of the order to the number/cost of the large/small pizzas

   (b) Solve the sytem of equations by graphing. What is the cost of a large pizza? What is the cost of a small pizza?

Solve each system by substitution. Show your work!

7) $-8x + y = -23$
$8x + 5y = 29$

8) $x - 6y = -17$
$6x + 6y = 24$

9) $y = -4x - 19$
$y = x + 6$

10) $y = 8x + 14$
$y = 4x + 6$

11) $-2x - 2y = -6$
$y = -2x + 2$

12) $y = -3x - 4$
$7x + 4y = -1$