Math-3A Name_____ ID: 1

SM3-A HW #11-7 (solve systems using substitution)

Date_____ Period____

Solve each system by substitution. Show your work!

1) $y = 6x - 1$
$y = -8x - 1$

2) $y = 5x + 9$
$y = 3x + 3$

3) $y = -4x - 2$
$2x - y = -10$

4) $y = 8x - 23$
$2x + 4y = 10$

5) $y = -2x - 5$
$-4x - 6y = 14$

6) $-4x - 4y = 4$
$x - 4y = -21$

7) $-8x + 4y = -20$
$-x + y = -6$

8) $-4x + y = -17$
$-2x + 2y = -10$

9) One order at "In-n-Out Burger" had 4 hamburgers and 5 large milkshakes. The total cost (without tax) was $21.56. Another order had 13 hamburgers and 8 milkshakes. The total cost (without tax) was $57.57. 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 either by graphing, substitution, or elimination. What is the cost of a hamburger? What is the cost of a milkshake?

10) One order at "Joe's Pizza Bar" had 12 large pizzas and 5 small pizzas. The total cost (without tax) was $135.75. Another order had 3 large pizzas and 7 small pizzas. The total cost (without tax) was $72.75. 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 either by graphing, substitution, or elimination. What is the cost of a hamburger? What is the cost of a milkshake?

11) Is the ordered pair (4, 6) a solution to the system of equations? (Show your work)
$14x - 9y = 2$
$7x - 3y = 12$

12) Is the ordered pair (-4, -2) a solution to the system of equations?
$-8x + 5y = 22$
$4x - y = -14$