

Name: _____

Date: _____

Algebra System of Equations Practice Problems

1.) $2x + 4y = 38$
 $5x - 4y = -3$

2.) $3x + 4y = -5$
 $-3x + 4y = 13$

3.) $x + 4y = 19$
 $-x + 2y = 5$

4.) $2x - y = -5$
 $-x - y = 10$

5.) $5x + 3y = -1$
 $5x - 2y = 34$

6.) $\frac{2}{3}x + 2y = \frac{8}{3}$
 $4x + 2y = -14$

7.) $4x - 3y = 15$
 $\frac{3}{5}x + 3y = \frac{132}{5}$

8.) $3x - y = -24$
 $-2x + y = 16$

9.) $5x - y = 52$
 $5x + 5y = 10$

10.) $-4x - 5y = -70$
 $4x - 5y = -30$

11.) $-x + 3y = -6$
 $x - 2y = 4$

12.) $3x + y = 20$
 $-4x + 3y = -18$

13.) $5x + 4y = 56$
 $5x - 8y = -52$

14.) $4x + 5y = 27$
 $16x + 2y = 54$

Section 7.4 (Applications of Linear Systems Problems)

Work all problems out on a separate sheet of paper.

- 15) You go to the video store to rent 5 movies for the weekend. Movies rent for \$2 and \$3. You spend \$13. How many \$2 movies did you rent? How many \$3 movies did you rent?
- 16) You and your friend go to a Mexican restaurant. You order 2 tacos and 3 enchiladas, and your friend orders 3 tacos and 5 enchiladas. One bill was \$7.80 plus tax and the other was \$12.70 plus tax. How much was each taco and enchilada?
- 17) You are buying decorations for a birthday party. The before tax total for 3 rolls of crepe paper and 20 balloons is \$11.40. After you start decorating, you need more supplies. You buy 2 more rolls of crepe paper and 10 more balloons for \$7.20. How much did each balloon and roll of crepe paper cost.
- 18) A dorm room at a college you are considering seems small. The room is rectangular and has a perimeter of 42 feet. The room is 4 feet longer than it is wide. What are the dimensions of the room?
- 19) Last year you mowed grass and shoveled snow for 10 households. You charge \$200 a season to mow a yard and \$180 a season to shovel snow. If you earned \$1880 last year, how many households did you mow and how many did you shovel?
- 20) You are buying the meat for a cookout. You need to buy 8 packages of meat. Hot dogs cost \$1.60. A package of hamburgers costs \$5.00. If you spend a total of \$23.00, how many packages of each can you buy?
- 21) Your family goes to a Southern-style restaurant for dinner. There are 6 people in your family. Some people order the chicken dinner for \$14 and some order the steak dinner for \$17. If the total bill was \$99, how many people ordered each dinner?
- 22) A sporting goods store sells right-handed and left-handed baseball gloves. In one month, 12 gloves were sold for a total revenue of \$561. Right-handed gloves cost \$45 and left handed gloves cost \$52. How many of each type of glove did you sell?
- 23) Your teacher is giving you a test worth 100 points containing 40 questions. There are two point and four point questions on the test. How many of each type of question is on the test?
- 24) The math club and the science club had a fund raiser for hurricane victims. The math club spent \$135 buying six cases of juice and one case of bottled water. The science club spent \$110 buying four cases of juice and two case of bottled water. How much did a case of bottled water cost?
- 25) Suppose you invested \$1500 in equipment to put a picture on a t-shirt. The t-shirt itself cost you \$3. If you sell the newly printed t-shirt for \$20 each. How many must you sell before you break even?
- 26) You are buying supplies for a party and buy three rolls of streamers and 15 party hats that cost \$30. Later you return to the store for an additional purchase of 2 rolls of streamers and 4 party hats and it cost you an additional \$11. How much did each streamer and party hat cost?