SIMILAR To TEST

The vending machine contains a total of 395 quarters and dimes. The total value of the coins is \$66.80. How many of each are there?

$$(q + d = 395) \times (0.1)$$

0.25 q + 0.1 d = 66.80

$$4 + d = 395$$
 $82 + d = 395^{-18}$
 $d = 213$

$$\frac{-0.10 - 0.10d = 49.5}{0.25q + 0.10d = 66.80}$$

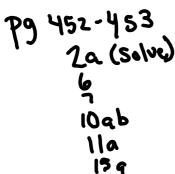
$$\frac{0.15q}{0.15} = \frac{27.30}{0.15}$$

$$Q = 182$$

Worksheet on solving Word Problems using systems of equations

Solving System of Equations Word Problems

- 1) Michelle is making goodie bags for Christmas filled with chocolates and candy. Chocolates cost \$2.50 per lb and candy cost \$3.00 per lb. Michelle spent a total of \$40.00 on chocolates and candy. She bought a total of 15 lbs of chocolate and candy. How many lbs of each did she buy?
- 2) 20 000 tickets were sold to the Green Day concert. Stage level seats cost \$105 and higher level seats cost \$75. If the total money collected from selling tickets was \$1 740 000, how many of each type were sold?
- 3) Kaitlyn's Gourmet Pretzel Shop specializes in selling the very finest chocolate covered pretzels. Thomas bought 4 white chocolate pretzels and 6 dark chocolate pretzels for \$10.50. Tyson bought 8 white chocolate and 3 dark chocolate pretzels for \$9.75. What is the cost of each type of pretzel?
- 4) Tyler is catering a banquet for 250 people. Each person will be served either chicken or beef. The chicken cost \$5.00 per person and the beef cost \$7.00 per person. Tyler spent \$1500. How many dishes of each type did he serve?
- 5) Your teacher is giving a test worth 100 points containing 40 questions. There are two points and four points question on the test. How many of each type of questions are on the test?
- 6) The Music club and the Drama club had fundraiser's to buy supplies. The Music club spent \$135 buying six cases of juice and one case of bottle water. The Drama club spent \$110 buying four cases of juice and two cases of bottled water. How much did each type of drink cost?
- 7) Suppose you bought supplies for a party. Three rolls of streamers and 15 party hats that cost \$30. Later, you bought 2 rolls of streamers and 4 party hats for \$11. How much did each roll of streamers cost? How much did each party hat cost?



79 455 46 51,::, b

Answers:

- 1) Chocolate = 10 Candy = 5
- 2) Stage Level = 8000 Higher Level = 12 000
- 3) Dark = \$1.25 White= \$0.75

- 4) Chicken = 125 Beef = 125
- 5) Two point = 30 Four point = 10
- 6) Juice = \$20 Water = \$15

7) Streamers = \$2.50 Hats = \$1.50 1) Michelle is making goodie bags for Christmas filled with chocolates and candy. Chocolates cost \$2.50 per lb and candy cost \$3.00 per lb. Michelle spent a total of \$40.00 on chocolates and candy. She bought a total of 15 lbs of chocolate and candy. How many lbs of each did she buy?

X -> choco Late

y -> candy

$$x + y = 15$$
 -> $x = 15 - y$

2.5 x + 3.00 y = 40

37.50 - 2.50 y + 3.00 y = 40

37.50 + 0.5 y = 40.

0.5 y = 2.50

y = 3.50

 $y = 5$

X=10

You bought 5lb Candy

10 16 choco

2) 20 000 tickets were sold to the Green Day concert. Stage level seats cost \$105 and higher level seats cost \$75. If the total money collected from selling tickets was

\$1,740,000, how many of each type were sold?

$$0 + H = 20000 - H = 20000 - 9$$

$$105(a) + 75(H) = 1740000$$

$$105(a) + 75(2000 - a) = 1740000$$

$$30a + 1500000 = 1740000$$

$$30a = 1740000 - 1500000$$

$$30a = 240000$$

$$30a = 240000$$

$$a = 240000$$

$$a = 240000$$

$$H = 18 000$$

$$H = 8000 - 8000$$

$$H = 90000 - 9000$$

3) Kaitlyn's Gourmet Pretzel Shop specializes in selling the very fines chocolate covered pretzels. Thomas bought 4 white chocolate pretzels and 6 dark chocolate pretzels for \$10.50. Tyson bought 8 white chocolate and 3 dark chocolate pretzels for \$9.75. What is th cost of each type of pretzel?

$$W \rightarrow W + 4 = 10.50$$
 $4W + 6d = 10.50$
 $8W + 3d = 9.75$

$$4\omega + 60 = 10.50$$
 $4\omega + 6(1.25) = 10.5$
 $4\omega + 6(1.25) = 10.50$
 $4\omega + 7.50 = 10.50 - 7.50$
 $4\omega = 3.00$
 $4\omega = 3.00$
 $\omega = 3.00$
 $\omega = 3.00$
 $\omega = 0.75$

4) Tyler is catering a banquet for 250 people. Each person will be served either chicken or beef. The chicken cost \$5.00 per person and the beef cost \$7.00 per person. Tyler spent \$1500. How many dishes of each type did he serve?