

Systems of Equations Word Problems Practice

Name _____ PER _____ DATE _____

For all problems, define variables, write the system of equations and solve for all variables.

1. A large pizza at Palanzio's Pizzeria costs \$6.80 plus \$0.90 for each topping. The cost of a large cheese pizza at Guido's Pizza is \$7.30 plus \$0.65 for each topping. How many toppings need to be added to a large cheese pizza from Palanzio's Pizzeria and Guido's Pizza in order for the pizzas to cost the same, not including tax?

2. Ms. Kitts works at a music store. Last week she sold 6 more than 3 times the number of CDs that she sold this week. Ms. Kitts sold a total of 110 CDs over the 2 weeks. Which system of equations can be used to find l , the number of CDs she sold last week, and t , the number of CDs she sold this week?

3. The length of a rectangle is equal to triple the width. Which system of equations can be used to find the dimensions of the rectangle if the perimeter is 86 centimeters?

4. The Frosty Ice-Cream Shop sells sundaes for \$2 and banana splits for \$3. On a hot summer day, the shop sold 8 more sundaes than banana splits and made \$156.

5. Chase and Sara went to the candy store. Chase bought 5 pieces of fudge and 3 pieces of bubble gum for a total of \$5.70. Sara bought 2 pieces of fudge and 10 pieces of bubble gum for a total of \$3.60. Which system of equations could be used to determine the cost of 1 piece of fudge, f , and 1 piece of bubble gum, g ?

2. ANS:

$$l + t = 108$$

$$l = 3t + 6$$

PTS: 1

DIF: 9

STA: a.8.a

LOC: 4

MSC: 03 #13

3. ANS:

$$l = 3w$$

$$2(l + w) = 85$$

PTS: 1

DIF: 10

STA: a.8.a

LOC: 4

NOT: 03 #20

4. ANS:

$$t + m = 2.10$$

$$2t + 3m = 5.15$$

PTS: 1

DIF: 11

STA: a.8.a

LOC: 4

MSC: 03 #3

5. ANS:

$$2s + 3b = 156$$

$$s = b + 8$$

PTS: 1

DIF: 9

STA: a.8.a

LOC: 4

MSC: 04 #39

6. ANS:

$$5f + 3g = 5.70$$

$$2f + 10g = 3.60$$