

Lesson 61: Quiz 1 - Problem Solving Using Equations

Directions: Solve the following problems using the **equations** and information in the boxes.

Example: The cost of footwear is represented in the box below:

Let:

p = price of all footwear

s = shoes

b = boots

$$p = 3s + b$$

Shanna needs to buy shoes for three of her children and one (1) pair of boots. What would the price be for all of the footwear if shoes cost \$40 and boots \$49?

(Solve using this equation):

$$p = 3s + b$$

$$p = 3(\$40) + \$49$$

$$p = \$120 + \$49$$

$$p = \underline{\$169}$$

1) Sonia needs to figure out her pay for last week when she worked overtime. The equation below can help solve this problem

Let:

t = total pay

h = hourly pay

o = overtime

$$t = 40h + o$$

If Sonia earns \$10 an hour and her overtime pay was \$79, how much should her total pay be this week?

Select one:

- a) \$479
- b) \$400
- c) \$497
- d) \$749

2) The price of a cab ride can be solved by the following equation.

Let:

c = price of the **c**ab ride

p = fare for each **p**erson

m = the **m**eter price when
you enter the cab

$$c = 3p + m$$

If the cost of a **c**ab ride is \$1.25 per **p**erson and the **m**eter starts at \$2.25 when you enter the cab, how much will a cab ride cost for 3 riders?

Select one:

- a) \$6.00
- b) \$5.75
- c) \$3.75
- d) \$3.50

3) The cost of airline tickets can be solved by the equation in the box.

Let:

a = **a**irfare

g = price for **g**rownups

c = price for **c**hildren

$$a = 3g + c$$

If the price of **a**irfare for **g**rownups is \$250 and the price for a **c**hild is \$125, how much will **a**irfare cost for a group with 1 **c**hild and 3 **g**rownups to go on vacation?

Select one:

- a) \$875
- b) \$625
- c) \$375
- d) \$850

4) One state calculates sales tax by the equation $t = 0.04s + \$25$ (administrative fee). How much sales tax will *G & H Bodega* pay if their sales this week were \$25,000?

Select one:

- a) \$1,025
- b) \$1,220
- c) \$1,250
- d) \$1,205

5) Martha bought 12 pizzas for her birthday party. Each pizza was cut into eight slices. Each person at the party, including Martha, ate two slices. There was no pizza left over. How many people were at the party? (Don't forget to include Martha!)

Answer: _____