

5.12

Word Problem with Money

• Example 1

An automobile dealer sells a fleet of 10 cars to a taxi company for \$152,500 which includes a \$1500 discount on each car. What was the original price of each car?

Let x be the original price of one car, in dollars, then $10x - 1500 \cdot 10$ is the total amount paid, that is,

$$10x - 15,000 = 152,500$$

We solve the equation for x .

$$10x = 167,500$$

$$x = 16,750$$

Each car originally cost \$16,750.

● ● ● CHECK YOURSELF 1

A computer company gives a discount of \$250 per computer to a company that plans to buy 80 computers. The total bill with the discount is \$100,000. What was the original price of each computer?

● ● ● CHECK YOURSELF ANSWER

1. \$1500.

5.12 Exercises

Name _____

Section _____

Date _____

A N S W E R S

1. _____

2. _____

3. _____

4. _____

5. _____

Solve the following word problems. Be sure to label the unknowns and to show the equation you use for the solution.

1. Monthly earnings. Mike and Stefanie work at the same company and make a total of \$2760 per month. If Stefanie makes \$1400 per month, how much does Mike earn every month?

2. Appliance costs. A washer-dryer combination costs \$650. If the washer costs \$360, what does the dryer cost?

3. Computer costs. You have \$2350 saved for the purchase of a new computer that costs \$3675. How much more must you save to buy the computer?

4. Price increases. The price of an item has increased by \$225 over last year. If the item is now selling for \$965, what was the price last year?

5. Salaries. Rafael earns \$35 more per week than Andrew. If their weekly salaries total \$715, what amount does each earn?