

Lesson 4 Solving Word Problems Using Systems

Example 1

Kaitlin would like to buy a new furnace. One brand costs \$1200 to buy, and \$160 a month to operate. The other brand costs \$900 to buy and \$210 a month to operate.

- a) Determine the number of months for which the total cost of either unit will be the same.
- b) Determine how much Kaitlin will save in one year by purchasing the more economical furnace.

Example 2

The sum of two numbers is 60 and their difference is 24. Determine the two numbers.

Example 3

A man is 24 years older than his daughter. In 10 years, he will be 2.5 times her age. Determine the current ages of the man and his daughter.

Example 4

Chase emptied his piggy bank and discovered \$10.05. In his piggy bank there were only quarters and dimes. Determine how many of each coin he had if there were 60 coins altogether.