

Objectives: I can write and solve equations to model real world problems.

SOLVING WORD PROBLEMS USING EQUATIONS Part 2

Now that you have practiced writing equations to model situations, you will also find the solution to the problems by solving the equations.

$$\text{Total} = \text{Start} + \text{Rate} \cdot \text{How many}$$

Write an equation to model each situation and then solve to find the solution.

1) Billy plans to paint baskets. The paint costs \$14. The baskets cost \$7 each. Write an equation that finds the total cost, C, if 6 baskets were made. Determine the cost of six baskets.

Equation: $C = 14 + 7 \cdot 6$
 Work } $C = 14 + 42$
 } $C = 56$
 Solution } $\$56$
 (Include units)

2) Felicia paid \$125 to join a tennis club. She pays an additional \$5 every time she uses one of the club's tennis courts. Write an equation to model this situation to determine n number of times Felicia played tennis if her total cost for playing tennis is \$300. How many times did she play?

Equation: $300 = 125 + 5 \cdot n$
 Work }
$$\begin{array}{r} 300 = 125 + 5 \cdot n \\ -125 \quad -125 \\ \hline 175 = 5n \\ \underline{5} \quad \underline{5} \\ n = 35 \end{array}$$

 Solution } 35 times
 (Include units)

Homework

Write an equation to model each situation and then solve to find the solution.