

Day 3 – Creating Equations from a Context – Practice

Write an equation that models the situation. You do NOT have to solve!

1. Five times the sum of e and 4 is equal to -7 .

$$5(e+4) = -7$$

2. Jamie buys 9 CDs at same price per CD and a cassette tape for \$9.45. His total bill was \$118.89.

$$9c + 9.45 = 118.89$$

Define a variable for each problem below. Then write an equation that can be used to model the following problem. Finally, use your equation to **SOLVE** the problem.

3. At a concert, Nabila purchased three t-shirts and a \$15 concert program. In total, Nabila spent \$90. Find the cost of a single t-shirt if they all had the same price.

Variables: t : cost of t-shirt

Model: $3t + 15 = 90$

$$\begin{array}{r} 3t + 15 = 90 \\ -15 \quad -15 \\ \hline 3t = 75 \end{array}$$

$$\begin{array}{r} 3t = 75 \\ \div 3 \quad \div 3 \\ \hline t = 25 \end{array}$$

$t = \$25$ per t-shirt

4. Oberon Cell Phone Company advertises service for 3 cents per minute plus a monthly fee of \$29.95. If Parker's phone bill for October was \$38.95, find the number of minutes he used.

Variables: m : number of minutes
↳ 1 month

Model: $0.03m + 29.95 = 38.95$

$$\begin{array}{r} 0.03m + 29.95 = 38.95 \\ -29.95 \quad -29.95 \\ \hline 0.03m = 9.00 \end{array}$$

$$\begin{array}{r} 0.03m = 9.00 \\ \div 0.03 \quad \div 0.03 \\ \hline m = 300 \end{array}$$

$m = 300$ minutes

5. Jacqueline had \$20 to spend on 7 raffle tickets. After purchasing them she had \$6 left. How much did each raffle ticket cost?

Variables: t : cost of raffle tickets

Model: $20 - 7x = 6$

$$\begin{array}{r} 20 - 7x = 6 \\ -20 \quad -20 \\ \hline -7x = -14 \end{array}$$

$$\begin{array}{r} -7x = -14 \\ \div -7 \quad \div -7 \\ \hline x = 2 \end{array}$$

$x = \$2.00$ per ticket