

$$0.05x + 0.10(17 - x) = 1.20$$

$$\left[\begin{array}{c} 0.05x \\ \downarrow \\ 5x \end{array} + \begin{array}{c} 0.10(17 - x) \\ \downarrow \\ 10(\quad) \end{array} \right] = \begin{array}{c} [1.20] \\ \downarrow \\ 120 \end{array}$$

$$5x + 170 - 10x = 120$$

$$-5x + 170 = 120$$

$$-5x = -50$$

$$x =$$

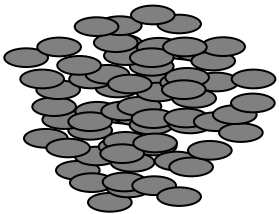
Note: 10 Nickels = \$0.50
 7 Dimes = \$0.70

 Total Value = \$1.20

$x =$ *Nickels*
 $17 - x =$ *Dimes*

A collection of 42 coins has a value of \$6.45. The collection is made up of dimes and quarters. How many dimes and quarters are in the collection?

Dimes and Quarters



42 Coins Total
\$6.45

$$\begin{array}{ccccccc}
 & & & & & & \\
 \textit{Total} & & \textit{Total} & & \textit{Total} & & \\
 \textit{value of} & + & \textit{value of} & = & \textit{combined value} & & \\
 \textit{dimes} & & \textit{quarters} & & \textit{of coins} & & \\
 & & & & & & \\
 & + & & = & & & \\
 & & & & & &
 \end{array}$$

$$0.10x + 0.25(42 - x) = 6.45$$

$$\begin{array}{l} [0.10x + 0.25(42 - x)] = \\ \downarrow \qquad \qquad \downarrow \\ 10x + 25(\quad) = \end{array} \quad \begin{array}{l} [6.45] \\ \swarrow \end{array}$$

$$10x + 1050 - 25x = 645$$

$$-15x + 1050 = 645$$

$$-15x = -405$$

$$x =$$

Note: 27 Dimes = \$2.70
 15 Quarters = \$3.75

 Total Value = \$6.45

$x =$ *Dimes*
 $42 - x =$ *Quarters*