

Warm Up

10/19/18

1. Solve the following system and find the value of $x + y$

$$\begin{array}{r} -2(x - y = -10) \quad y = x + 10 \quad x = y - 10 \\ 2x + 4y = 22 \\ \hline \cancel{2x} + 2y = 20 \\ + \quad \cancel{2x} + 4y = 22 \\ \hline \quad 6y = 42 \\ \quad \frac{6y}{6} = \frac{42}{6} \\ \quad y = 7 \end{array}$$
$$\begin{array}{r} x - 7 = -10 \\ +7 \quad +7 \\ \hline x = -3 \end{array}$$

$(-3, 7)$

4

2. Solve the following system to find the value of x that satisfies the equations.

$$\begin{array}{r} x = 3y \\ 2x + 4y = 10 \\ 2(3y) + 4y = 10 \\ 6y + 4y = 10 \\ 10y = 10 \\ y = 1 \end{array}$$
$$\begin{array}{r} x = 3(1) \\ x = 3 \\ (3, 1) \\ 3 \end{array}$$

$d = \text{dimes}$ $q = \text{quarters}$

$$-.10(d + q = 100)$$

$$.10d + .25q = 21.40$$

$$\begin{array}{r} + \quad - .10d - .10q = -10 \\ \quad \quad .10d + .25q = 21.40 \\ \hline \end{array}$$

$$\begin{array}{r} .15q = 11.40 \\ \hline .15 \end{array}$$

$$q = 76$$

24 dimes
76 quarters

$$\begin{array}{r} 100 \\ - 76 \\ \hline 24 \end{array}$$

**System
Application
Continued**

