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

$-2(x - y = -10)$

$2x + 4y = 22$

$-2x + 2y = 20$

$+\ 2x + 4y = 22$

$6y = 42$

$\frac{6y}{6} = \frac{42}{6}$

$y = 7$

$x - 7 = -10$

$+7 \quad +7$

$x = -3$

$-3 + 7$

$\boxed{4}$

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

$x = 3y$

$2x + 4y = 10$

$2(3y) + 4y = 10$

$6y + 4y = 10$

$10y = 10$

$y = 1$

$x = 3(1)$ $\boxed{x = 3}$

System Application Continued

(18) $n + d = 25$
$.05n + .10d = 1.65$

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(16) $d + n = 42$
$.10d + .05n = 3.30$

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(17) $n + q = 42$
$.05n + .25q = 4.90$

$-.10(d + n = 42)$
$.10d + .05n = 3.30$

$-.10d - .10n = -4.2$
$+ \quad .10d + .05n = 3.30$

$-.05n = -0.90$

$\frac{-.05n}{-.05} = \frac{-0.90}{-0.05}$

$n = 18$ nickels

$42 - 18$

24 dimes

M = mult. choice 30 w = word probs. 8

$m + w = 38$

$2m + 5w = 100$

$m = 38 - w$

$2(38 - w) + 5w = 100$

$76 - 2w + 5w = 100$

$76 + 3w = 100$

$-76 \quad -76$

$3w = 24$

$\frac{3w}{3} = \frac{24}{3}$

$w = 8$

$38 - 8$

30