

10/31

Wednesday, October 31, 2012  
9:56 AM

## Word Problems (Day 2)

exs

- (1) If three is added to twice a number, the result is 9 less than the number. Find the number.

let  $n = \text{number} = -12$

$$\begin{array}{r} 3 + 2n = n - 9 \\ -n \quad -n \\ \hline \end{array}$$

$$\begin{array}{r} 3 + n = -9 \\ -3 \quad -3 \\ \hline n = -12 \end{array}$$

- (2) Erin and Margo together scored 64 pts. in their basketball game. Erin scored 10 more than twice Margo. Find how many pts. each girl scored.

let  $x = \text{Margo's pts} = 18 \text{ pts.}$   
 $10 + 2x = \text{Erin's pts} = 46 \text{ pts.}$

last will be x.

$$\begin{array}{r} 10 + 2(18) \\ 10 + 36 \\ 46 \end{array}$$

CLT

$$\begin{array}{r} \underbrace{x}_{\text{margo}} + \underbrace{10 + 2x}_{\text{erin}} = 64 \\ 3x + 10 = 64 \\ -10 \quad -10 \\ \hline 3x = 54 \\ \underline{3} \quad \underline{3} \end{array}$$

$$\begin{array}{r} \text{CK } 18 \\ + 46 \\ \hline 64 \text{ pts. } \checkmark \end{array}$$

$$x = 18$$

(4) let  $x = \text{Jim} = \$50$   
 $3x = \text{Kelly} = \$150$

$$\begin{array}{r} x + 3x = 200 \\ 4x = 200 \\ \underline{4} \quad \underline{4} \end{array}$$

$$x = 50$$

(5) let  $x = \text{number} = \underline{6}$

$$\begin{array}{r}
 6x - 6 = 12 + 3x \\
 \underline{-3x} \qquad \qquad \underline{-3x} \\
 3x - 6 = 12 \\
 \qquad \underline{+6 \quad +6} \\
 3x = 18 \\
 \underline{\quad \quad \quad} \\
 \frac{3}{3} \quad \frac{18}{3} \\
 x = 6
 \end{array}$$

(2) let  $g = \text{girls} = \underline{13}$   
 $g + 5 = \text{boys} = \underline{18}$

$$\begin{array}{r}
 g + g + 5 = 31 \\
 2g + 5 = 31 \\
 \underline{-5 \quad -5} \\
 2g = 26 \\
 \underline{\quad \quad \quad} \\
 \frac{2}{2} \quad \frac{26}{2}
 \end{array}$$

$$g = 13$$

(9) let  $a = \text{number} = \underline{14}$

$$\begin{array}{r}
 7a + 2 = 100 \\
 \underline{-2 \quad -2} \\
 7a = 98 \\
 \underline{\quad \quad \quad} \\
 \frac{7}{7} \quad \frac{98}{7}
 \end{array}$$

$$a = 14$$

(7) let  $n = \text{number} = \underline{6}$

$$\begin{array}{r}
 2n + 7 = 13 + n \\
 \underline{-n \qquad \qquad \quad -n} \\
 n + 7 = 13 \\
 \underline{-7 \quad -7} \\
 n = 6
 \end{array}$$

(6) let  $S = \# \text{ of cartons}$   $\text{Sum unpacked} = \frac{8}{16}$   
 $2S = \text{"Carlos"} = \underline{16}$   
 $S + 2S = 24$

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

$$S = 8$$