Monday, October 20, 2014

Quiz TOMORROW~!~

Write Two Step Equations

There are three steps to writing a two step equation:

1. Describe the situation. Use only the most important words.

2. Define a variable to represent the unknown quantity.

3. Translate your verbal model into an algebraic equation.

Examples:

turnaround words: less than more than

A. Eight less than three times a number is -23.

8 − 3n = -23

3n − 8 = -23

B. Thirteen is 7 more than one-fifth of a number.

13 = 7 + $\frac{1}{5}$n

13 = $\frac{1}{5}$n + 7

C. Fifteen equals three more than six times a number.

15 = 3 + 6n

15 = 6n + 3

D. Ten increased by a quotient of a number and 6 is 5.

10 + $\frac{n}{6}$ = 5

10 + $\frac{n}{6}$ = 5

E. The difference between 12 and 2/3 of a number is 18.

12 − $\frac{2}{3}$n = 18

Writing and Solving Two Step Equations

Example 1: You buy 3 books that each cost the same amount and a magazine, all for $55.99. You know that the magazine costs $1.99. How much does each book cost?

b = cost of each book

$3b + 1.99 = 55.99$

$-1.99 \quad -1.99$

$\frac{3b}{3} = \frac{54}{3}$

$b = 18$

Each book costs $18.

Example 2: A personal trainer buys a weight bench for $500 and *w* weights for $24.99 each. The total cost of the purchase is $849.86. How many weights were purchased?

Example 3: You and your friend's lunch cost $19. Your lunch cost $3 more than your friend's lunch. How much was your friend's lunch?

x = cost of friend's lunch

x + 3 = your lunch

$x + x + 3 = 19$

$2x + 3 = 19$

$-3 \quad -3$

$\frac{2x}{2} = \frac{16}{2}$

$x = 8$

Your friend's lunch cost $8.