

Friday, Sept. 26, 2014

Please turn your homework into the tray. Today you need your notes, vocabulary, pencil, and agenda.

Try these two problems quietly at your seat:

1. $-6(n+2)$

$$\begin{array}{l} -6n + \underline{-6 \cdot 2} \\ -6n + (-12) \end{array}$$

2. $(t-4)(8)$

$$8t - 32$$

Distributive Property

One Step Addition and Subtraction Equations

Students will solve addition and subtraction equations.

An equation is a sentence stating that two quantities are equal (contains an equals sign).

Example: $x + 2 = 6$

The value of a variable that makes an equation true is called the solution of the equation.

Example: In the equation $x + 2 = 6$, the solution is $x = 4$.

$x + 2 = 6$ and $x = 4$ are equivalent equations because they have the same solution.

The Subtraction Property of Equality

The subtraction property of equality states that the two sides of an equation remain equal when you subtract the same number from each side.

Whatever you do to one side of an equation, you have to do to the other in order to keep it balanced!!!

Example 1: Solve the equation. Check your solution.

$$y + 6 = 9$$

$$\begin{array}{r} -6 \\ \hline y = 3 \end{array}$$

$$3 + 6 = 9$$

$$9 = 9 \quad \checkmark$$

Example 2: Solve the equation. Check your solution.

$$-3 = a + 4$$

$$\begin{array}{r} -4 \\ \hline -7 = a \end{array}$$

$$\begin{array}{r} L \quad C \quad C \\ -3 - 4 \\ \hline -3 + -4 \\ -3 = -7 + 4 \\ -3 = -3 \quad \checkmark \end{array}$$

Example 3: The highest recorded temperature in Warsaw, Missouri, is 118 degrees F. This is 158 degrees greater than the lowest recorded temperature. Find the lowest recorded temperature.

$$118 = t + 158$$

$$\begin{array}{r} -158 \\ \hline -40 = t \end{array}$$

$$\begin{array}{r} L \quad C \quad C \\ 118 - 158 \\ \hline 118 + (-158) \\ \hline 158 \\ -118 \\ \hline -40 \end{array}$$

-40°F is the lowest recorded temp.

The Addition Property of Equality

The addition property of equality states that the two sides of an equation remain equal when you add the same number to each side.

Example 4: Solve the equation.
Check your solution.

$$\begin{array}{r} y - 3 = 4 \\ +3 \quad +3 \\ \hline y = 7 \end{array}$$

Example 5: Solve. Check your solution.

$$\begin{array}{r} r - 4 = -2 \\ +4 \quad +4 \\ \hline r = 2 \end{array}$$

$$-2 + 4 = 4 - 4 = 0$$

Example 6: The average lifespan of a tiger is 17 years. This is 3 years less than the average lifespan of a lion. Write and solve an equation to find the average lifespan of a lion.

$$\begin{array}{r} 17 = l - 3 \\ +3 \quad +3 \\ \hline 20 = l \end{array}$$

20 years is the average lifespan of a lion.

Homework:

1-10