

Prealgebra ~ Lesson 16

Work the following examples as you listen to the recorded lecture.

Solving Equations: Addition and Multiplication Properties

Steps for solving equations:

1. **Simplify each side** of the equation by distributing multiplication and/or combining like terms.
2. Get the **variable terms to the same side** by **adding or subtracting** the smaller term.
3. Get rid of **any number** that is **added or subtracted** on the **side with the variable** by performing the **opposite operation**.
4. **Divide** both sides by the **coefficient** of the variable.

Solve the following equations:

Example 1:
 $x + 7 = 2 + 3$

Example 2:
 $10y - y = 45$

Example 3:
 $5y - 9y = -14 + (-14)$

Example 4:
 $\frac{y}{3} = 32 - 52$

Example 5:
 $-7 + 10 = 4x - 6 - 3x$

Example 6:
 $3y - 12 = 0$

Example 7: $-2(x + 5) - 2 = -8 - 4$

Example 8: $y - 20 = 6y$

Example 9: $y - 8 = -5 - 1$

Example 10: $8x - 4 - 6x = 12 - 22$