

Lesson 4.1 Solving Two-Step Equations

Remember our steps for solving equations:

C = Copy the problem

EC = Eliminate the constant (Same side as the variable and added to or subtracted from the variable.)

S = Simplify the equation

IV = Isolate the variable (Divide if a whole number coefficient and multiply by the reciprocal if a fraction.)

S = Solve

Examples:

$$3x + 8 = 2$$

$$\frac{-x}{4} - 8 = 1$$

You are joining a community tennis club. The annual membership fee is \$50, and a tennis court rents for \$10 per hour. You plan to spend no more than \$190 playing tennis during the year. How many hours can you play?

Verbal Model:

Labels:

Algebraic Model:

Lesson 4.2 Solving Multi-Step Equations

Follow these steps:

1. Copy
2. Simplify like terms on the same side of the equal sign.
3. Eliminate the constant
4. Simplify
5. Isolate the variable
6. Solve

Examples:

$$2x + 3x - 4 = 11$$

$$-13 = 3n + 3 + n$$

Distributing a negative

$$2 - (3x - 4)$$

Your Spanish club is making posters to raise money. The printer charges a base fee of \$270, plus \$2 per poster supplies. You sell each poster for \$5. Ho many posters must you sell to make a \$300 profit.
Remember...Profit = Income - Expenses

Verbal Model:

Labels:

Algebraic Model: