Lesson 4

Solving Two-Step Equations

Lesson

Many equations require two steps to solve. The general strategy:

1. Undo addition or subtraction first.
2. Then undo multiplication or division.

Think of it as "unwrapping" the variable -- reverse the order of operations.

Example: Solve 2x + 5 = 17

Step 1: Subtract 5 from both sides

$$2x + 5 - 5 = 17 - 5$$

$$2x = 12$$

Step 2: Divide both sides by 2

$$x = 12 / 2$$

$$x = 6$$

Check: 2(6) + 5 = 12 + 5 = 17 [correct]

Practice Problems

1) Solve: 3x + 4 = 19

2) Solve: 5y - 8 = 22

3) Solve: $x/3 + 7 = 12$

4) Solve: $4n - 10 = -2$

5) Solve: $-2w + 9 = 1$

6) Solve: $m/5 - 3 = 4$

7) Solve: $6a + 11 = -1$