

Solving Multi-Step Equations

Sometimes solving an equation requires more than one step.

Use the techniques for solving one-step equations.

Simplify one or both sides of the equation first, if needed, by using the distributive property or combining like terms.

Example 1: Solve the equation.

$$2x - 3 = 5$$

+3 +3

$$\frac{2x}{2} = \frac{8}{2}$$

$$x = 4$$

$$6y + 1 = 5y - 9$$

-5y -5y

$$y + 1 = -9$$

-1 -1

$$y = -10$$

$$4m + 2 + 4m = 26$$

$$8m + 2 = 26$$

-2 -2

$$\frac{8m}{8} = \frac{24}{8}$$

$$m = 3$$

$$\frac{3}{8}x - 6 = 18$$

+6 +6

$$\frac{8}{3} \cdot \frac{3}{8} x = 24 \cdot \frac{8}{3}$$

$$x = 64$$

$$5 - 2(r + 6) = 1$$

$$5 - 2r - 12 = 1$$

$$-2r - 7 = 1$$

+7 +7

$$\frac{-2r}{-2} = \frac{8}{-2}$$

$$r = -4$$

Name

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