

What are steps used to solve any 1-var equation.

1. Distribute / Simplify
2. Move vars. to one side of $=$
3. Move constants to opp side
4. Divide by coeff
5. Check Ans.

Solving Equations Review

$$\begin{array}{r} x - 5 = 8 \\ +5 \quad +5 \\ \hline x = 13 \end{array}$$

Solving Equations Review

$$3x = 9$$

Solving Equations Review

$$\begin{array}{r} x - 7 = 12 \\ + 7 \quad + 7 \\ \hline x = 19 \end{array}$$

Solving Equations Review

$$-5x = 15$$

Solving Equations Review

$$2x + 3 = 7$$

Solving Equations Review

$$5x - 4 = 21$$

Solving Equations Review

$$\begin{array}{r} 2x + 3 = 3x - 5 \\ -2x + 5 \quad -2x + 5 \\ \hline \quad \quad 8 = x \end{array}$$

Solving Equations Review

$$\begin{array}{r} 5x + 2 = 3x - 7 \\ -3x - 2 \quad -3x - 2 \\ \hline \end{array}$$

$$\frac{2x}{2} = \frac{-9}{2}$$

$$x = -\frac{9}{2}$$

Solving Equations Review

$$2(x-3) = 5$$

$$2x - 6 = 5$$

$$+6 \quad +6$$

$$\frac{2x}{2} = \frac{11}{2}$$

$$x = \frac{11}{2}$$

Solving Equations Review

$$-2(x+3) = 4(x-?)$$

$$\begin{array}{r} -2x - 6 = 4x - 28 \\ +2x + 28 \quad +2x + 28 \end{array}$$

$$\frac{22}{6} = \frac{6x}{6}$$

$$x = \frac{22}{6} = 11/3 \text{ or } 3\frac{2}{3} \text{ or } 3.\overline{6}$$

Solving Equations Review

$$3x - 2(x + 4) = 5 - (x + 2)$$

$$3x - 2x - 8 = 5 - x - 2$$

$$\begin{array}{r} \cancel{x} - \cancel{8} = 3 - x \\ +x + 8 \quad +8 + x \\ \hline 2x = 11 \\ \cancel{2} \quad \cancel{2} \\ x = \frac{11}{2} \end{array}$$

Solving Equations Review

$$2 + 3 \cancel{[x - 3(x+1)]} = 2 \cancel{[x + 3(x+4)]}$$
$$= 2 [x - 3(x+4)]$$

Solving Equations Review

$$12 \left[\frac{1}{3}x + \frac{2}{3}(3x-9) \right] = \left[\frac{1}{4}(x+3) \right]^2$$

$$4x + 8(3x-9) = 3(x+3)$$

$$4x + 24x - 72 = 3x + 9$$

$$\begin{array}{r} 28x - 72 = 3x + 9 \\ -3x + 72 \quad -3x + 72 \\ \hline \end{array}$$

$$\frac{25x}{25} = \frac{81}{25}$$
$$x = 81/25$$

Solving Equations Review

$$\frac{1}{3}x + \frac{2}{3}(x+4) = -\frac{1}{3}(x-4)$$

$$2 + 3(x + 4) = 5x - 2(x - 1)$$

$$2 + 3x + 12 = 5x - 2x + 2$$

$$\cancel{3x} + 14 = \cancel{3x} + 2$$

$$14 \neq 2$$

\emptyset

$$3(x-2) + 2(x-1) = 5(x+4) - 28$$

$$3x - 6 + 2x - 2 = 5x + 20 - 28$$
$$5x - 8 = 5x - 8$$

$$x = \text{any real number}$$

Solving Equations Review