


Step 1: Distribute

Example:

$$x + 2(x + 3) = -5(x + 6) - 4$$


$$x + 2x + 6 = -5x - 30 - 4$$

Sep 16-12:07 PM

Do not solve, just practice the step shown above.

1) $8x - 4(x - 9) = -(9x - 16) + 9(x - 1)$


2) $\frac{1}{2}(4x - 16) = -4(3x - 2)$

Sep 16-3:01 PM

Step 2: Combine Like Terms

Example continued:

$$x + 2(x + 3) = -5(x + 6) - 4$$

$$x + 2x + 6 = -5x - 30 - 4$$


$$3x + 6 = -5x - 34$$

Sep 16-3:02 PM

Do not solve, just practice the step shown above. Combine Like Terms on each side.

3. $8x - 4x - 17 = -19x - 3x + 8 + x$

4. $5x - 2 + 15 - 4x = 2x - 28 - 13 + 8x$

Sep 16-3:02 PM

3: Move Variables and Constants to Opposite Sides

Example continued:

$$x + 2(x + 3) = -5(x + 6) - 4$$

$$x + 2x + 6 = -5x - 30 - 4$$

$$3x + 6 = -5x - 34$$

$$3x + 5x = -34 - 6$$

Sep 16-3:03 PM

Do not solve, just practice the steps shown above. Move the variables and constants to opposite sides of the equals sign.

5. $-4x - 67 = -19x - 8$

6. $15x - 150 = 23x - 290$

$$15x - 23x = -290 + 150$$

$$-8x = -140$$

7. $-15 = 18x - 290$

$$-15 + 290 = 18x$$

$$-18x = -290 + 15$$

OPTION #1
OPTION #2

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- 4: Collect Like Terms.
- 5: Solve for the Variable by Multiplying or Dividing.

Example continued:

$$x + 2(x + 3) = -5(x + 6) - 4$$

$$x + 2x + 6 = -5x - 30 - 4$$

$$3x + 6 = -5x - 34$$

$$3x + 5x = -34 - 6$$

$$8x = -40$$

$$\frac{8x}{8} = \frac{-40}{8}$$

$$x = -5$$



Sep 16-3:04 PM

Follow the example above and solve for x showing every step:

$$8) 3x + 4(x - 3) = -5(2x - 6) + 9$$

DISTRIB. $3x + 4x - 12 = -10x + 30 + 9$

C.L.T. $7x - 12 = -10x + 39$

SWITCH $7x + 10x = 39 + 12$

C.L.T. + Simplify $\frac{17x}{17} = \frac{51}{17}$

$x = 3$

Sep 16-3:05 PM