

Solving Multi-Step Equations 4.3



Overview of problems

Example Set: A

Solve the equations- show all work:

1. $8(y - 4) = 10$

2. $5(x + 6) = 2x$

3. $-6x + 8 = 4x - 12$

4. $2(x + 6) = 9(x - 1)$

5. $15x + 21 - x = 10x - 9$

Example Set: B

Solve the equations- show all work:

1. $-4(3 - x) = 11(4x - 3)$

2. $\frac{1}{2}(8n - 2) = 16 - 30n$

3. $6\left(\frac{3}{2}x + 1\right) = -9\left(\frac{1}{3}x - 2\right)$

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Example Set: C

Solve the equations- show all work:

1. $2(y - 4) + 3(y - 10) = 10y + 16$

2. $\frac{4}{9}x = 6(x + 6) + x$

3. $70 = \frac{2}{3}m + \frac{1}{9}$

Example Set: D

Solve the equation- show all work:

1. $7(9.63x - .32) - 5.12 = -2(67.28x + 3.01)$

Example Set: E

1. On a vacation you are told the outside temperature is 75 degrees Fahrenheit. Given the conversion formula below determine how warm it is outside in Celsius.

$$F = \frac{9}{5}C + 32$$

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Overview of problems

Example Set: A -**ANSWER KEY**

Solve the equations- show all work:

1. $8(y - 4) = 10$ $y = 5.25$

2. $5(x + 6) = 2x$ $x = -10$

3. $-6x + 8 = 4x - 12$ $x = 2$

4. $2(x + 6) = 9(x - 1)$ $x = 3$

5. $15x + 21 - x = 10x - 9$ $x = -7.5$

Example Set: B- **ANSWER KEY**

Solve the equations- show all work:

1. $-4(3 - x) = 11(4x - 3)$ $x = \frac{21}{40}$

2. $\frac{1}{2}(8n - 2) = 16 - 30n$ $n = \frac{1}{2}$

3. $6\left(\frac{3}{2}x + 1\right) = -9\left(\frac{1}{3}x - 2\right)$ $x = 1$

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Example Set: C-ANSWER KEY

Solve the equations- show all work:

1. $2(y - 4) + 3(y - 10) = 10y + 16$ $y = -10.8$

2. $\frac{4}{9}x = 6(x + 6) + x$ $x = -5.49$

3. $70 = \frac{2}{3}m + \frac{1}{9}$ $m = 104.83$



Example Set: D-ANSWER KEY

Solve the equation- show all work:

1. $7(9.63x - .32) - 5.12 = -2(67.28x + 3.01)$ $x = .00663$



Example Set: E-ANSWER KEY

2. On a vacation you are told the outside temperature is 75 degrees Fahrenheit. Given the conversion formula below determine how warm it is outside in Celsius. 23.8°C

$$F = \frac{9}{5}C + 32$$