Foundations of Algebra

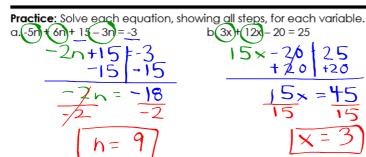
Unit 4: Equations & Inequalities

Notes

Day 2 - Solving Multi-Step Equations

Multi-step equations mean you might have to add, subtract, multiply, or divide all in one problem to isolate the variable. When solving multi-step equations, you are using inverse operations, which is like doing PEMDAS in reverse order.

Multi - Step Equations with Combining Like Terms



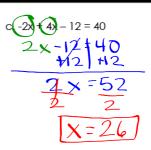
Ing all steps, for each variable
$$63x+12x-20=25$$

$$15 \times -20 + 25$$

$$+20 + 20$$

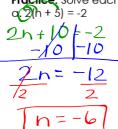
$$15 \times = 45$$

$$15 \times = 3$$



Multi - Step Equations with the Distributive Property

Practice: Solve each equation, showing all steps, for each variable. at 2(h + 5) = -2 b. 2(2x - 7) + 5 = -39



b.
$$G(2x-7)+5=-39$$

 $8x-28+5=-39$
 $8x-23+-39$
 $+23+23$
 $-23+23$
 $-23+23$
 $-23+23$
 $-23+23$
 $-23+23$
 $-23+23$
 $-23+23$

c.
$$6x - (3x + 8) = 16$$

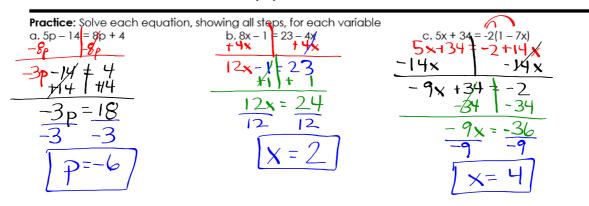
 $6x - 3x - 8 = 16$
 $3x - 8 = 16$
 $\frac{3x - 8 = 16}{48 + 8}$
 $\frac{3x = 24}{3}$

Foundations of Algebra

Unit 4: Equations & Inequalities

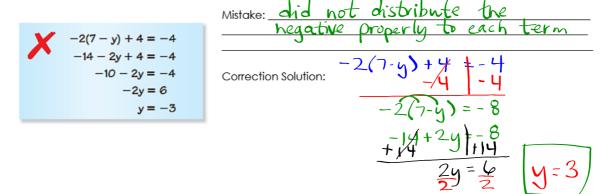
Notes

Multi - Step Equations with Variables on Both Sides



Error Analysis with Solving Equations

1. Rachel solved the following equation on her homework. However, she solved it incorrectly. Describe the mistake Rachel made and what she should have done instead. Then resolve the equation to find the correct answer.



2. Mikayla solved the following equation on her homework. However, she solved it incorrectly. Describe the mistake Mikayla made and what she should have done instead. Then resolve the equation to find the correct answer.

