

### Sec 2-3: Solving Multi-Step Equations

- Eliminate parentheses from the problem
  - Distributive Property
  - Division (if possible)
- Combine like terms that are on the same side of the = sign
- Undo Addition or Subtraction
- Undo Multiplication or Division

Solve

$$2x + 11 - 6(x - 8) - 3x + 21 = 46$$

Distributive Property first

$$-6x + 48$$

$$2x + 11 - 6x + 48 - 3x + 21 = 46 \quad \text{Now combine like terms}$$

$$-7x + 80 = 46$$

$$-80 \quad -80$$

Now solve

$$\frac{-7x}{-7} = \frac{-34}{-7}$$

$$x = \frac{34}{7}$$

**Due Monday** Hwk #9

Pages 91-93

Problems 8, 10, 14, 16, 40, 52, 54, 57, 61, 66

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**Due Tuesday**

First 3 sheets from Eq Solving Packet

- 1-step
- 2-step
- Multi-Step

Equation solving quiz.

Work on these after the your quiz.

Simplify each.

1.  $-\frac{5}{3}x \cdot 18$

2.  $\frac{5}{8} + \frac{1}{6} - \frac{7}{9}$

Solve.

3.  $5 - \frac{2}{7}b = -3$

4.  $\frac{3}{11} + \frac{2}{11}A = \frac{13}{11}$

5.  $\frac{13}{6} + \frac{5}{6}b = -2$

Simplify each.

1.  $-\frac{5}{3}x \cdot 18$

$$= \boxed{-\frac{5}{3} \cdot 18} \cdot x$$

$\downarrow$   
 $-30x$

$$2. \frac{9}{9} \cdot \frac{5}{8} + \frac{12}{12} \cdot \frac{1}{6} - \frac{7}{9} \cdot \frac{8}{8}$$

$$\frac{45}{72} + \frac{12}{72} - \frac{56}{72} = \boxed{\frac{1}{72}}$$