Warm-Up

Grab a yellow sheet off the stool in the front of the room and use your mul-step equaon skills to make your way through the maze!

Sep 16-11:58 AM

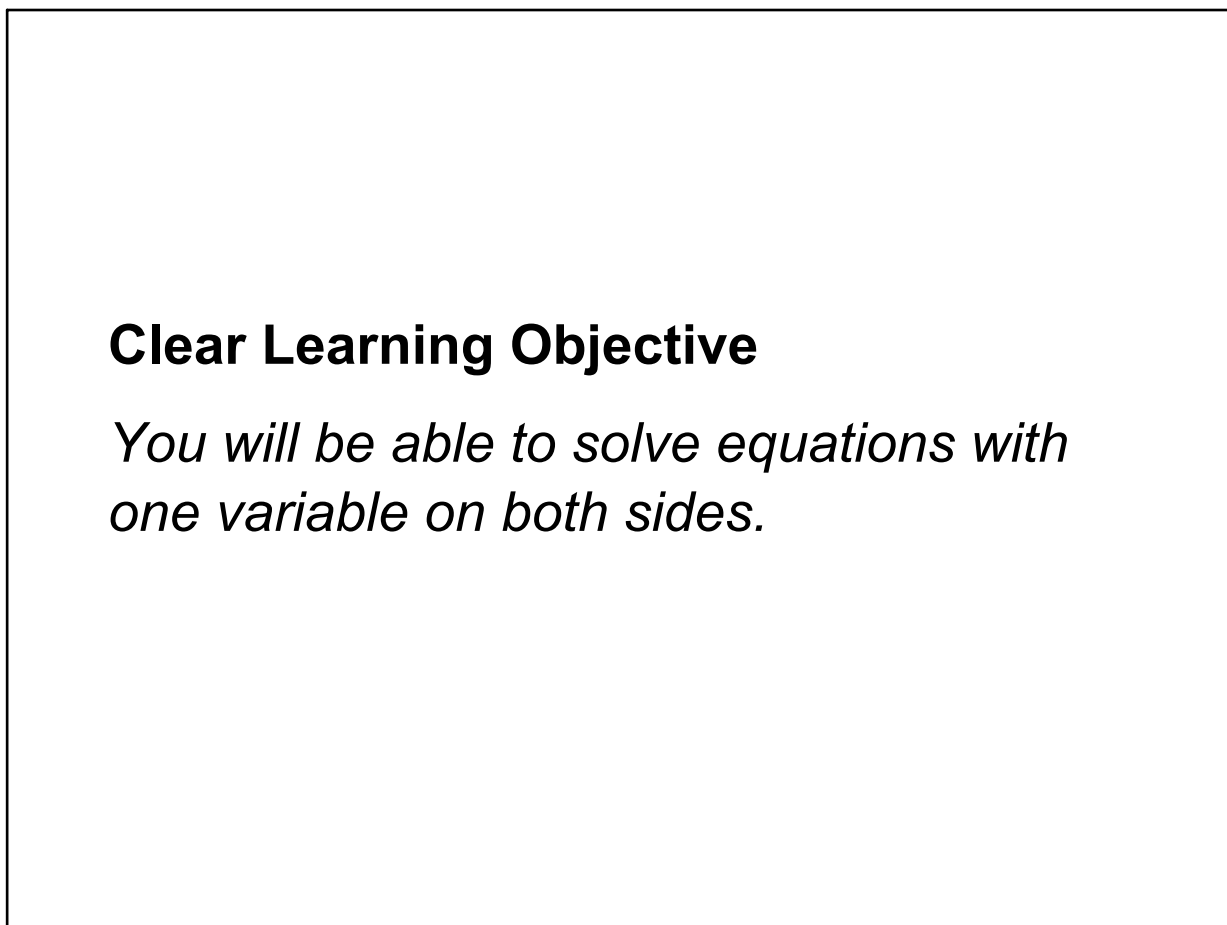$$\frac{2}{2/3} = \frac{2}{1} \cdot \frac{3}{2} = \frac{6}{2} = 3$$

$$\frac{(7x)}{} = \frac{(7)(-1)}{}$$

$$x = -7$$

$$\frac{-x}{-1} = \frac{-1 \cdot x}{-1}$$

Sep 17-8:44 AM

Sep 17-8:55 AM

Clear Learning Objective

You will be able to solve equations with one variable on both sides.

Sep 16-12:01 PM

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

$$8x - 4x + 36 = -9x + 16 + 9x - 9$$

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

$$2x - 8 = -12x + 8$$

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

$$4x - 17 = -21x + 8$$

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

$$x + 13 = 10x - 41$$

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3: Move Variables and Constants to Opposite Sides

Example continued:

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

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

variables | constants

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

signs switch

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

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

$$-4x + 19x = 67 - 8$$

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

7. $-15 = 18x - 290$

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

Example continued:

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

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

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

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

$8x = -40$

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

$x = -5$ ☑

Sep 16-3:04 PM

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

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

Sep 16-3:05 PM

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