$2x - 6 = -8$

Chapter 6 (Lesson 4)
Solving 2-step Equations

$\frac{x}{3} - 8 = -12$

The solution to an equation is the value for the variable that makes the sentence true. s)

To solve the equations in this section, follow these steps:

*Check each side of the equation to be sure it is simplified (no like terms and no parentheses)

To solve the equation $6x - 8x + 4 = -10$, combine like terms on the left side first $-2x + 4 = -10$

*When there are two operations on one side of the equation, we always undo the addition or subtraction first.

$$\begin{array}{r} -2x + 4 = -10 \\ -4 \quad -4 \\ \hline -2x = -14 \end{array}$$

$$-2x = -14$$

$$\frac{-2x}{-2} = \frac{-14}{-2}$$

$$x = 7$$

*This results in a one step equation which we solve by dividing both sides by -2

Solve: $4x - 2 = 10$

Bubble Method

*Put a "bubble" around the variable and the number connected to it

* Undo the addition or subtraction with the inverse operation to make zero

* Draw line, copy bubble term, equal sign, and do the arithmetic on other side

* "Pop" the bubble and solve the resulting 1-step equation

Example 1:

Solve: $\frac{y}{3} + 5 = -12$ Check:

Example 2:

Solve: $-b + 5 = -16$ **Check:**

Example 3:

Solve: $41 = 5 - 6h$ **Check**:

Example 4:

Solve: $6x - 7 = -43$ **Check**:

Example 5:

Solve: $\frac{y}{-4} + 6 = 3$ **Check**:

Example 6:

Solve:

$2n - 12n + 4 = -18 + 2$ **Check**: