Chapter 6 Section 4

Solving Absolute-Value Equations

Agenda

Objective: I can solve absolute value equations.

- **Warm Up:** Quiz Review
- **HW Review**
- **6.4 Solving Absolute Value Equations**
- **Classwork**: pg 356 #6-11
- **Homework**: pg 356 #19-39 odd

"Life has no limitations, except the ones you make."
– Les Brown

Absolute Value Review

- Absolute Value equations have two answers

Examples:

$$|5| = \qquad |9| = \qquad |1| =$$

$$|-5| = \qquad |-9| = \qquad |-1| =$$

Solving Absolute Value Equations

- Steps:
    - Isolate the Absolute Value Bars
    - Set equation equal to positive and negative number
    - Solve for the Variable
    - CHECK YOUR WORK!

Examples:

- 1. $|x| = 6$
- 2. $|x| = 14$

Examples:

- 3. $|x| + 3 = 22$
- 4. $|x| - 4 = 12$

Examples

- 5. $|x| - 7 = 2$ 6. $|x| + 6 = 8$

Examples

7.) $|x + 1| = 2$

8.) $|x - 3| = 7$

Examples

9.) $|2x + 1| = 9$ 10.) $|3x - 7| = 10$

Examples

11.) $|4x - 1| - 7 = 2$

Classwork

- Pg 356 # 6-11

Homework

- Pg 356 # 19-39 odd