Lesson 1-6 Guided Notes

Standard

A2. F.BF.A.1 Write a function that describes a relationship between two quantities.

Objectives

I can solve one-, two-, and multi-step absolute value equations with no procedural errors.
I can solve one-, two-, and multi-step absolute value inequalities with no procedural errors.

Key Concepts

_____ - the distance from zero on the number line.

Written $|x|$

_____- a solution derived from an original equation that is NOT a solution to the original equation.

Steps to solve an absolute value equation

1. _____

2. _____

3. _____

4. _____

Examples

1. Solve and check the absolute value equation.
   a. (I do) $|2x - 1| = 5$ b. (We do) $3|x + 2| - 1 = 8$

2. Solve and check for extraneous solutions.
   a. (They do) $|3x + 2| = 4x + 5$

3. Solve and graph the inequality. $|A| < b$

   a. (I do) $|2x - 1| + 1 < 5$

   b. (We do) $\left|\frac{x-3}{2}\right| + 2 < 6$

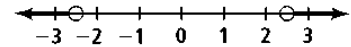4. Solve and graph the inequality. $|A| \geq b$

   a. (They do) $|2x + 4| \geq 6$

   b. (You do) $\frac{2}{3}|6x - 2| \geq 4$

5. Write as an absolute value inequality.

   a. (I do) $1.3 \leq h \leq 1.5$

   b. (I do)

6. (They do) In order to enter the kiddie rides at the amusement park, a child must be between the ages of 4 and 10. Let a represent the age of a child who may go on the kiddie rides. Write an absolute value inequality.