

Warm Up:

Evaluate.

1. $|0|$

2. $|-2.1|$

3. $\left|-5\frac{2}{3}\right|$

4. $|34.7|$

Speak Like A Mathematician:

Absolute Value:

Example 1: Solving an Absolute Value Equation

$$|x| = 3$$

$$|m| = 6$$

$$|y + 2| = 4$$

$$|2t - 4| = 8$$

Example 2: Solving an Absolute Value Equation

$$|3x - 4| = -1$$

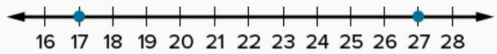
$$|4m + 25| = -50$$

Example 3a: Writing and Solving an Absolute Value Equation

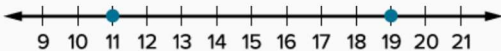
- Depending on the size of each song, Luna's phone holds an average of 2000 songs, give or take 250 songs. Write and solve an equation involving absolute value to find the maximum and minimum number of songs that Luna's phone can hold.

Example 3b: Writing and Solving an Absolute Value Equation

- It takes approximately 6 minutes for a sky diver to land after she jumps out of a plane, give or take 30 seconds. What is the range of time, in seconds, it could take the sky diver to land?

Example 4: Writing an Absolute Value Equation

Which of the following could be an equation for the graph shown?



☐ A $|x + 15| = 4$

☐ B $|x + 4| = 15$

☐ C $|x - 15| = 4$

☐ D $|x - 4| = 15$