SM3 Absolute value

**CORE STANDARDS**

A.REI.2

LESSON

**3-2**

OBJECTIVE **1.** I can solve absolute value equations.

NOTES An **absolute value** is defined as the distance from 0. As a distance this value is always positive.

To solve a radical equation:

Step 1: Isolate the absolute value expression.

Step2: Set the quantity inside the absolute value notation equal to + and - the quantity on the other side of the equation.

Step 3: Solve for the unknown in both equations.

Step 4: Check your answer analytically or graphically

EXAMPLES

1. $\left|x-8\right|=5$
2. $\left|x+11\right|=9$
3. $\left|x+2\right|=-3$
4. $\left|5+7x\right|=47$
5. $\left|-5x+6\right|+2=41$
6. $-6-\left|2x+7\right|=-25$
7. You are a quality control inspector at a bowling pin company. A regulation pin must weigh between 50 and 58 ounces, inclusive. Write an inequality describing the weights you should reject.