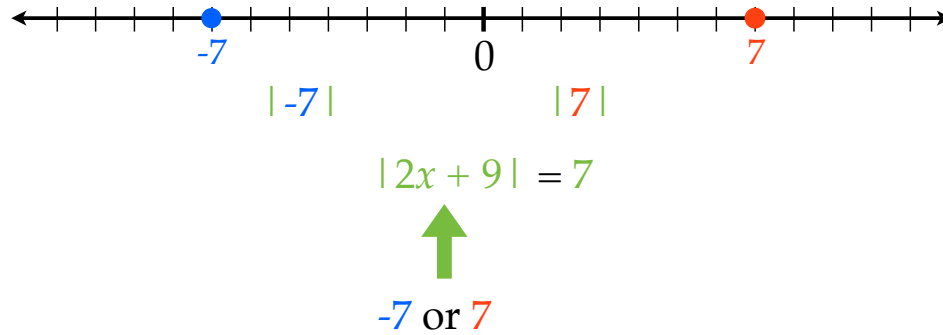


Absolute Value

The **absolute value** of a number is its **distance** from zero on the number line.



Steps to Solve an Absolute Value Equations

1. Isolate **absolute value expression**
2. Create **two equations**

$$|x| = a$$

$$\swarrow \quad \searrow$$

$$x = a \quad x = -a$$

3. **Solve both equations**

Solve the following Absolute Value Equations

$$|4x| = 28$$

Solve the following Absolute Value Equations

$$3|x| = 18$$

Solve the following **Absolute Value** Equations

$$|x + 5| = 3$$

Solve the following **Absolute Value** Equations

$$|3x - 9| = 12$$

Solve the following **Absolute Value** Equations

$$2|2x + 4| = 20$$

Solve the following **Absolute Value** Equations

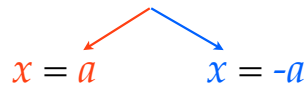
$$-4|x - 6| = 16$$

Steps to Solve an Absolute Value Equations

1. Isolate absolute value expression

2. Create two equations

$$|x| = a$$



A diagram illustrating the branching of an absolute value equation. A central point has two arrows pointing downwards and outwards. The left arrow is red and points to the equation $x = a$. The right arrow is blue and points to the equation $x = -a$.

$$x = a \quad x = -a$$

3. Solve both equations