

**Section 1.7: Solving Absolute Value  
Equations and Inequalities**

**Absolute value = \_\_\_\_\_ FROM ZERO**

**Examples: Solve for  $x$ .**

1. $ x  = 12$	2. $ x  = -3$
3. $ 6x - 3  = 15$	4. $ 2 - 4x  = 10$

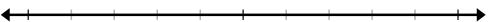
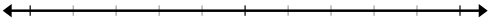
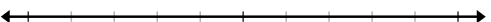
**Solving Absolute Value Inequalities**

An absolute value inequality is a \_\_\_\_\_ inequality.

If  $|x| < c$  or  $|x| \leq c$  and  $c > 0$ , then  $x$  is *between*  $-c$  and  $c$ , so it is a  
**“and”** compound inequality.

If  $|x| > c$  or  $|x| \geq c$  and  $c > 0$ , then  $x$  is *beyond*  $-c$  and  $c$ , so it is an **“or”**  
 compound inequality.

**Examples:** Rewrite each absolute value inequality as a compound inequality. Then, solve and graph it.

1. $ x  > 4$  	2. $ x  \leq 3$  
3. $ 3x - 2  > 1$  	4. $ -x + 5  \leq 6$  