

## Ex 1: $|x| \leq 12$

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



## Ex 2: $|x| > 5$

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



### Ex 3: $|x + 5| < 9$

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



### Ex 4: $|-6x| \geq 60$

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



**Ex 5:  $-3 + |x - 2| > 5$**

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



**Ex 6:  $9|x - 2| - 10 < -73$**

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



**Ex 7:  $4|6 - 2x| + 8 \leq 24$**

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.



**Ex 8:  $3 + 4|3x + 7| \geq -89$**

Rearrange the inequality so that the absolute value bars are one side and everything else is on the other side.

Determine your two new inequalities to be solved.

**Inequality #1**

**Inequality #2**

Determine if these two inequalities should be joined by AND or OR.

Solve the compound inequality.

Substitute value(s) from your solution set into the original inequality to check your solution.

Graph the solution on a number line.

