

One-variable Inequalities

Solving a one-variable inequality is similar to solving a one-variable equation. We want to determine the values that make this inequality true, so we want to isolate the variable, n .

First, subtract three from both sides of the inequality.

The product of negative four and n is less than or equal to 12.

Next, divide each side of the inequality by negative four. This is where inequalities differ from equations. Since we are dividing by a negative value, we are going to reverse the inequality symbol.

The values for n that will make the inequality true are greater than or equal to negative three.

Use a number line to graph this inequality. It represents all points greater than or equal to negative three.

As we stated at the beginning, we want to determine the values that make this inequality true. In solving the inequality, we determined that n is greater than or equal to negative three.

What values satisfy this inequality? Does two?

The value two satisfies the inequality.

What values satisfy this inequality? Does negative four?

The value negative four does not satisfy the inequality.