

Lesson 6-5 : Inequalities

SWBAT: Express and identify solutions of inequalities.

Inequality Symbols:

- \neq , $>$
- \geq , \leq

Using them in word problems –

A bull can cross a field in 10 seconds, write an inequality to represent the time limit you would have to cross the field.

- If you cross the field in 10 or more seconds you will get run over by the bull.

Skydivers jump from an altitude of 14,500 feet or less. Write an inequality to express the altitude they can jump from.

- Since they can jump from 14,500 feet or less it would be....

You can throw a softball at most 90 feet. Write an inequality for this situation.

Everyone in this class is at least 10 years old. Write an inequality for this.

Kristen has a bank account that shuts down if the balance drops below \$25. What would this be as an inequality?

Graphing Inequalities:

- A graph will show _____ to the inequality.
- To graph, we will put a circle on a number and an arrow from that circle going left or right.
- An open circle on the graph shows a number that is not included as a possible answer.
- A closed circle on the graph shows a number that is included as a possible answer.

1. Graph the inequality for $x < -1$

2. Graph the inequality for $x \leq -4$

3. You ride your scooter more than 2 miles.

4. The temperature is at most 5 degrees below zero