

Lesson 6-6 : Solving one step inequalities

SWBAT: Solve one step inequalities using inverse operations.

One Step Inequalities:

- Just like equations, you use _____!
- They are the same thing, except they have $<$ instead of $=$.

Ex:

$$\begin{array}{r} S - 7 < 3 \\ + 7 \quad + 7 \\ \hline S < 10 \end{array} \quad \text{To solve, use inverse operations and add 7 to both sides.}$$

- a. b. c. d.

A marathon runner plans to run at least 55 miles this week. He has already run 42 miles. Write and solve an inequality to find out how many more miles he will run.

- (hint): Miles run + Miles left is at least 55 miles

A restaurant can serve a maximum of 115 people. There are now 97 people at the restaurant. Write and solve an inequality to find how many more people can go to the restaurant.

Multiply/Divide Inequalities:

- Same as add/subtract, you must use inverse operations!

Ex:

- a. b. c. d.

You want to spend less than \$30 on two t-shirts and a pair of shorts. The shorts cost \$13 and each of the t-shirts cost the same amount. Write and solve an inequality to find how much money you can spend on each shirt.

Challenge:

Which integers are solutions to both $x + 7 \leq 9$ and $x + 7 > 4$?