

8.6 Write and Graph Inequalities (6.EE.8)

Steps to Writing

- 1.) Write the variable first (letter)
- 2.) Write the correct inequality sign (<, >, ≤ or ≥).
- 3.) Then, write the number.

Key Words

- at least - means greater than or equal to
- no more than - means less than or equal to
- more than or over - means greater than
- less than or under - means less than

Guided Practice

Write an inequality for each sentence.

- 1.) The movie will be no more than 90 minutes in length.

$$m \leq 90$$

- 2.) The mountain is at least 985 feet tall.

$$m \geq 985$$

- 3.) The rollercoaster ride is less than 3 minutes.

$$r < 3$$

- 4.) The soccer team wants to make more than three goals in this game.

$$s > 3$$

- 5.) Less than 15 students completed the fitness challenge.

$$s < 15$$

Steps to Graphing

- 1.) Say it in words.
- 2.) Identify the correct circle.
- 3.) Identify the shading.
- 4.) Graph on number line.

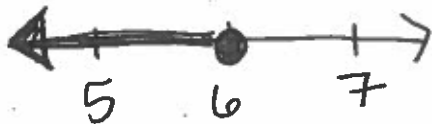
Different Circles

An open circle represents: $>$ (greater than) and $<$ (less than) \bigcirc

A closed circle represents: \leq (less than or equal to) and \geq (greater than or equal to) \bullet

Graph each inequality on a number line.

3.) $a \leq 6$



4.) $b > 4$



5.) $c < 1$



- 5.) Tasha can spend no more than \$40 on new books. Write and graph an inequality to describe how much she can spend.

$$t \leq 40$$



Partner Talk

Write an inequality for the sentence.

Swim practice will be no more than 35 laps.

$$s \leq 35$$



Building on the Essential Question - How can graphing an inequality help to solve it?

Graphing shows multiple solutions to the problem.

Are you ready to move on? YES or NO