

5.7 Write Inequalities

Key Symbols

Inequality Symbols				
Symbol	<	>	≤	≥
Key Phrases	<ul style="list-style-type: none"> •Is less than •Is fewer than 	<ul style="list-style-type: none"> •Is greater than •Is more than 	<ul style="list-style-type: none"> •Is less than or equal to •Is at most •Is no more than •Up to and including 	<ul style="list-style-type: none"> •Is greater than or equal to •Is at least •Is no less than

- Note: To write an inequality, look for the above phrases to determine where to place the inequality symbol.

Example: Write an inequality that represents the situation.

1.) Maria can lift at most 60 pounds. What weights can Maria lift?

$$x \leq 60$$

2.) Tina's car should not travel more than 3,000 miles without an oil change. What are the possible miles she can travel before an oil change?

$$c > 3000$$

3.) A fish tank can hold as much as 22 gallons of water. How many gallons of water might the fish tank hold?

$$f \leq 22$$

Example: Write an inequality that represents the situation. Show the inequality on a number line.

4.) Carter runs **less than** 7 miles in one hour. How many miles might Carter have run?

$$r < 7$$

5.) A banquet hall can hold **up to** 1000 people. How many can go to the prom at the banquet hall?

$$p \leq 1000$$

Example: Write an inequality that represents the situation. Show the inequality on a number line.

6.) A train stops at your station once an hour. How many minutes might you wait for a train, assuming the trains are on schedule?

$$t \leq 60$$

7.) The longest Jessica can hold her breath underwater is 96 seconds. How long might Jessica swim underwater before surfacing?

$$j \leq 96$$

8.) Kamal wants to make **more than** one cup of trail mix. How many cups of trail mix might Kamal make?

$$k > 1$$