

### 6.3a Class Activity and Homework: Review of Inequality Statements.

Review from 6<sup>th</sup> grade: writing and graphing inequalities.

Write inequalities for each statement below. For statements 1 – 4, the variable is identified for you. For statements 5 – 15, you must write what the variable will represent.

Example: The Garcia family car seats seven (with seat-belts) at most. " <i>x</i> " is the number of people that can sit in the Garcia's car.	$x \leq 7$
1. A school bus can seat at most 48 students. " <i>x</i> " is the number of people that can ride the bus.	
2. In many states you must be at least 16 years old to obtain a driver's license. " <i>x</i> " is the age you must be to obtain a drivers' license.	
3. It isn't safe to use a light bulb of more than 100 watts in many light fixtures. " <i>x</i> " is how many watts a light fixture has.	
4. At least 250 parents attended back-to-school night. " <i>x</i> " is the number of parents that attended back-to-school night.	
5. You must be no more than 15 years old to attend the middle school dance.	
6. A plane must travel at least 120 miles per hour to stay in the air. So as not to break the sound barrier, a plane must travel under 760 miles per hour.	
7. Children must be at least 48 inches tall to ride the roller coaster.	
8. You must have less than 3 tardies to get a satisfactory citizenship grade.	
9. Children younger than age 5 can get in free.	
10. To hunt big game in Utah a hunter must be at least 12 years old.	
11. The elevator can hold a maximum of 20 people	
12. To work the track at the community gym, you must be at least 16 years old.	
13. To join the FBI, you must be at least 23, but younger than 37 years old.	

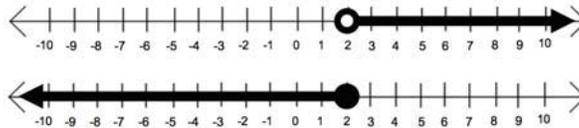
14. To run the class they must have no less than 12 participants registered.	
15. On the seven day family vacation, the Jones family traveled 12 miles on the shortest driving day and 500 miles on the longest driving day.	

Write situations to go with the following inequalities. Make up the situation and inequality for the last one.

16.	$x < 7$
17.	$x \geq 13$
18.	$x \leq -6$

Review: graphing inequalities on a number line:

Examine the inequality graphs below. Discuss the questions below as a class.



How are the inequalities shown on the number line?

Open circle means:

Closed circle means:

Next to each number line above, write the inequality represented by the number line above.