

Day 4 – Creating Inequalities from a Context - Notes

Part A Match each equation/inequality with the verbal descriptions listed below. You need to write the equation/inequality next to each verbal description. Try to use logical thinking as to which words indicate an inequality and which type and which ones indicate an equation. Highlight the key words you used to determine the matching equation/inequality.

Answer Choices

$$\begin{array}{cccccc} \cancel{n \geq 18} & \cancel{n = 18} & \cancel{n < 18} & \cancel{n > 18} & \cancel{n \leq 18} & \\ \cancel{n < 12} & \cancel{n \geq 12} & \cancel{n \leq 12} & \cancel{n = 12} & \cancel{n > 12} & \end{array}$$

- The attendant won't start the ride until there is at least 12 people. $n \geq 12$
- In order to attend the reward party, students must sell greater than 12 magazines. $n > 12$
- The gas tank can hold at most 18 gallons of gas. $n \leq 18$
- Maria has party supplies for a maximum of 12 people. $n \leq 12$
- Children under 12 pay a discounted price at the movie theater. $n < 12$
- You must be a minimum of 18 years old in order to vote. $n \geq 18$
- Carlos earned \$12 mowing a neighbor's yard. $n = 12$
- The number of songs Derrick can purchase with the gift card is fewer than 18. $n < 18$
- Ariel scored 18 points for her team in Saturday's game. $n = 18$
- Coach told us we needed to complete more than 18 repetitions. $n > 18$

Part B: Which keywords do you think indicate:

Greater Than	Less Than	Greater Than or Equal To	Less Than or Equal To	Equal to
more than over	fewer than under	minimum at least no less than	maximum at most no more than	earned

Part C: Using what you explored above, create an inequality to represent each scenario. Highlight keywords.

- The maximum number of people allowed on the ride at one time is 100. $x \leq 100$
- Children under 3 years old get into the park for free. $x < 3$
- In order to qualify for free shipping, you must spend at least \$25. $x \geq 25$
- Your essay must be over 300 words. $x > 300$
- Hikers can only hike in areas with an elevation no more than 5000 feet above sea level. $x \leq 5000$
- In order to earn 25% off your total, you have to spend no less than \$150. $x \geq 150$

Part D: Are there any other keywords you would add to your chart in Part B after completing Part C? Add them.