**Mini Lesson #1 – Graphing Inequalities (math 7 – Unit 3)**

Vocabulary: Inequality

I. Inequality Forms

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| Inequalities can be represented in 3 forms:  1) Words 🡪 x is less than 12  2) Symbols 🡪 x < 12  3) Graph (Number Line) 🡪    What does a graph mean/represent? |

II. Graphing and Writing Inequalities

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| --- | --- |
| An open circle represents these signs:  < which means  > which means | A closed circle represents these signs:  ≤  ≥ |

**Steps to graph the inequalities:**

1. Select the type of circle to use by looking at the inequality symbol
2. Determine which direction to shade in arrow by using the inequality symbol (helpful to rewrite inequality with variable on the left)

|  |  |
| --- | --- |
|  | **2.** |
| Complete the chart by filling in the missing information:   |  |  |  |  | | --- | --- | --- | --- | | Symbol | Words | Symbols | Picture | | < | x is less than 7 |  |  | | > |  | x > 3 |  | | ≥ | x is greater than or equal to 9 |  |  | | ≤ |  | x ≤ 5 |  | | |
| PRACTICE PROBLEMS for Unit 3 - ML #1 (Math 7)   1. Write an inequality for the situation: 2. Today’s attendance will be at least 250 people. 3. Tomorrow’s attendance will be less than 200 people. 4. Next weekend, there will be at most 90 people at the game. 5. You will get more than $100 for helping out with the party. 6. Graph and give the word form for each inequality: 7. a ≤ -5 b) m >     c) 3 ≥ r     1. Write the inequality statement that represents the graph.   a)  -4 -3 -2 -1 0 1 2 3      -4 -3 -2 -1 0 1 2 3   1. Graph and write each word phrase with symbols: 2. X is no more than -8 3. K is less than 0 4. -5 is less than or equal to 10 (be careful) 5. The height limit at the Roller Coaster (h) was at least 52 inches. | | |