**Math 6 - Unit 4: Equations & Inequalities** Name:

*Homework – Inequalities and Equation Practice*

Class Period: 1 2 3 4 Date:

***Write an inequality to model each situation and then graph the inequality on the number line.***

1) There are ***at most*** 5 pieces of candy for each student. **Inequality \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



2) ***Less than*** 10 students like coming to school. **Inequality \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



3) What inequality is graphed on the number line? **Inequality \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



4) What inequality is graphed on the number line? **Inequality \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**



5) What direct variation equation would be used to model the data in the graph?

**Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

6) What direct variation equation would be used to model the data in the table?

**Equation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x** | 0 | 3 | 5 | 12 |
| **y** | 0 | 33 | 55 | 132 |

7) What step should be done first to solve the following equation?

**Math 6 - Unit 4: Equations & Inequalities** Name: **KEY**

*Homework – Inequalities and Equation Practice*

Class Period: 1 2 3 4 Date:

***Write an inequality to model each situation and then graph the inequality on the number line.***

1) There are ***at most*** 5 pieces of candy for each student. **Inequality c < 5**



2) ***Less than*** 10 students like coming to school. **Inequality s < 10**



3) What inequality is graphed on the number line? **Inequality x > 8**



4) What inequality is graphed on the number line? **Inequality x > 0**



5) What direct variation equation would be used to model the data in the graph?

**Equation: y = 3x**

6) What direct variation equation would be used to model the data in the table?

**Equation y = 11x**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **x** | 0 | 3 | 5 | 12 |
| **y** | 0 | 33 | 55 | 132 |

7) What step should be done first to solve the following equation?

Multiply both sides of the equation by 17.