Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Test Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Expressions and Equations- Inequalities Summative REVIEW**

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| **Domain: Expressions and Equations*** I can understand solving an equation or inequality as a process of answering a question.
* I can write an inequality of the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem.
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**Directions:** Answer each of the following questions below. Be sure to show all work for each question!

1. Circle **all** answers that make the inequality true: 48 ≤ 5*m* + 8
2. *m* = 7 b.) *m* = 8

c.) *m* = 4.5 d.) *m* = 10

1. Check all of the values of x that make each equation or inequality true.

|  |  |  |  |
| --- | --- | --- | --- |
|  | x = 1 | x = 2 | x = 3 |
| 2x + 5 = 9 |  |  |  |
| 2x + 5 < 9 |  |  |  |
| 2x + 5 ≤ 9 |  |  |  |

1. Which inequality is NOT true when x = 6?

a.) 3*x* ≥ 18 b.) 2*x* < 12

c.) 2 + *x* < 10 d.) *x* - 2 ≤ 12

4.) In order to win a weight lifting contest, Rhonda must lift more than 290 pounds. If *x* represents the amount of weight Rhonda lifted, choose the inequality that represents this situation.

a. x ≥ 290

b. x > 290

c. x < 290

d. x ≤ 290

1. Graph all the solutions for the following inequality. Remember to solve first to determine the possible solutions for the value of *d* to make the inequality true.

$ \frac{d}{8}$ ≥ 5 Solution to inequality: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. Graph all the solutions for the following inequality. Remember to solve first to determine the possible solutions for the value of *m* to make the inequality true.

184 < m + 59 Solution to inequality: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. Solve and state all of the values for when the following equations/inequalities will be true and when they will be false.

a.)9*y* = 108

True\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

False \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. c – 43 < 51

True\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

False \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8.) All seventh graders must do at least 45 crunches in one minute.

a. Write an inequality to represent this situation. Let ***c*** represent the number of crunches.

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b. Graph the inequality on the number line below.

 42 43 44 45 46 47 48 49 50 51 52

1. Gia is buying new tennis shoes. Her mom says she should spend at least $60, but less than $120 on a pair of shoes. Let *m* represent the amount of money she spent.

This situation is represented by the inequality **60 ≤ *m* < 120**

Graph the inequality on the number line below.

 50 60 70 80 90 100 110 120 130 140 150