Name_____ Date_____

"Number System Review"

1. On Saturday morning, the temperature at 9am outside Heaven's house was -3°F. The temperature at 3:30pm outside Heaven's house was 5°F. Which statement about the change in temperature from 9am to 3:30pm outside Heaven's house is true?
   a) The temperature decreased by 5°F
   b) The temperature increased by 5°F
   c) The temperature decreased by 8°F
   d) The temperature increased by 8°F

2. What is the value of the expression $-\left(-\frac{7}{9}\right) \div \left(-\frac{2}{5}\right) x \left(-2\frac{1}{4}\right)$?

3. What is the value of $-\frac{1}{9}+\frac{2}{3}\left(6-\frac{1}{2}\right)-\frac{3}{4}$?

4. Which pair of expressions are equivalent?
   a) 24 – 11 and -24 + 11
   b) -15 – 21 and 21 – (-15)
   c) 8 – 3 and -3 – 8
   d) 12 – 26 and 12 + (-26)

5. A group of friends met in the school's parking lot for a scavenger hunt. At the starting point Kristen and Jada walked in opposite directions. Kristen walked north 225 feet and Jada walked south 310 feet.

   Part A: Draw a number line and plot Kristen and Jada ending location. Consider the starting point to be O, south to be the negative direction and north to be the positive direction

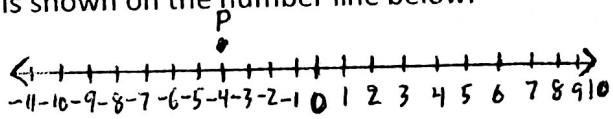
   Part B: How far apart are Kristen and Jada at their ending locations?
   Answer_____

   Part C: Write two different expressions that you could use to find the distance between Kristen and Jada.

   Expression 1_____

   Expression 2_____

6. Point P is shown on the number line below:



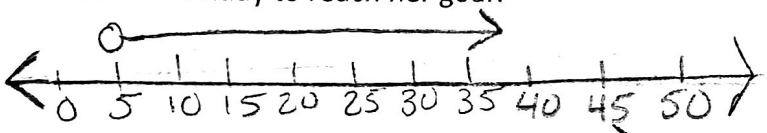
   The distance between point Q and point P is 6 ½ units. Which number could represent point Q?

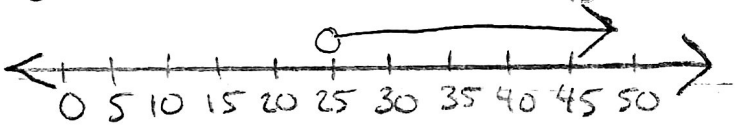
   a) -9 ½ b) 1 ½ c) 2 ½ d) 10 ½

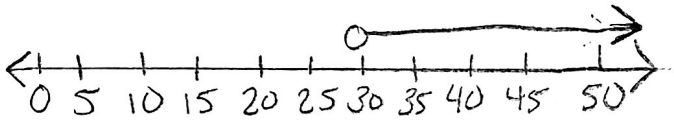
7. The width of a rectangle is $6\frac{2}{3}$ inches. The length of the rectangle is twice its width. What is the perimeter of the rectangle?

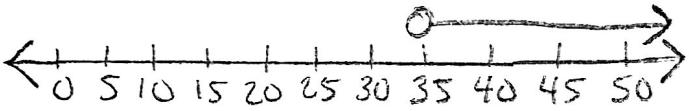
   a) 20 inches b) 40 inches c) $30\frac{2}{3}$ inches d) $88\frac{8}{9}$ inches

8. Mariama participated in a walkathon in which each kilometer walked raised $10 for charity. Her goal was to raise more than $300 on Saturday and Sunday. She raised $50 on Saturday. Which graph shows all the distances, in Kilometers, that Yolanda could have walked on Sunday to reach her goal?

a) 

b) 

c) 

d) 

9. Tyler needs to rent a car. A rental company charges $21.00 per day to rent a car and $0.10 for every mile driven.
   - He will travel 250 miles
   - He has $115.00 to spend

   a) Write an inequality that can be used to determine d, the maximum number of days that Tyler can rent a car.

   Inequality_____

   b) Tyler believes the maximum whole number of days he can rent the car is 5. Is he correct? Why or why not?

10. D'naiya is setting up a new tent during a camping trip. The tent came with 7 feet of rope. The instructions are to use 34.5 inches of the rope to tie a tarp on top of the tent. Then, the remaining rope should be cut into 8 ¼ inch sections to tie the tent to stakes in the ground. D'naiya will use all of the rope as instructed. Write and solve a equation to determine the number of 8 ¼ inch sections of rope D'naiya can cut from the rope.

Equation_____

Solution_____

11. A school club needs 300 feet of rope for a project. They have the amounts of rope listed below.
    - 2 pieces of rope that are each 16 yards in length
    - 1 piece of rope that is 12.5 yards in length
    - 1 piece of rope that is 123.25 feet in length

    How much additional rope, in feet, does the school club need in order to have enough rope for their project?

Answer_____

12. Leighcia has $500.00 to spend at a bicycle store. All prices listed below include tax.
    - She buys a new bicycle for $273.98
    - She buys 3 bicycle reflectors for $7.23 each and 1 bicycle helmet for $42.36
    - She plans to use the remaining money to buy new cycling outfits for $78.12 each

    What is the ***greatest*** number of cycling outfits that Leighcia could buy with the remaining money?

Answer_____