

NAME: \_\_\_\_\_ Score \_\_\_\_\_/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**

1. (1 pt.) The set of **Irrational** Numbers consists of all numbers which cannot be written as fractions of integers.

2. (1 pt.) Which elements of the set  $\left\{3, -\frac{5}{4}, \sqrt{13}, \frac{4}{3}, 0, \pi\right\}$  are rational numbers.

The rational numbers in the set are  $3, -\frac{5}{4}, \frac{4}{3},$  and  $0$

3. (1 pt.) Use set builder notation to describe the interval  $[-3, 5)$ .

$$[-3, 5) = \{x \mid -3 \leq x < 5\}$$

4. (1 pt.) T **F** Every real number is a rational number.

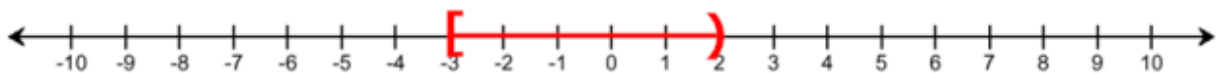
5. (1 pt.) T **F** Some real numbers are rational numbers.

6. (1 pt.) T **F**  $Z \subset Q$

7. (1 pt.) Simplify as much as possible  $\frac{(3 - \sqrt{9}) - (5 - 8)}{-3}$

$$\frac{(3 - \sqrt{9}) - (5 - 8)}{-3} = \frac{(3 - 3) - (-3)}{-3} = \frac{-(-3)}{-3} = \frac{3}{-3} = -1$$

8. (1 pt.) Sketch the graph of the interval  $[-3, 2)$



9. (1 pt.) State the Distributive Property.

**If  $a, b$  and  $c$  are real numbers, then  $a(b + c) = ab + ac$ .**

10. (1 pt.) Write the formula for area of a circle. (Remember a formula **MUST** be an equation.)

$$A = \pi r^2$$