

NAME: _____ Score _____/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**1. (1 pt.) The set of **Natural** Numbers consists of all the counting numbers.2. (1 pt.) Which elements of the set $\left\{3, -5, \sqrt{13}, \frac{4}{3}, 0\right\}$ are whole numbers.

3, 0

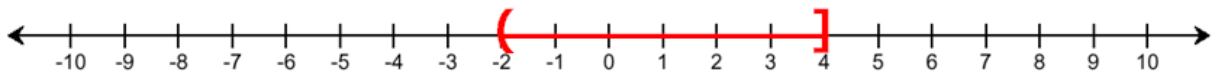
3. (1 pt.) Use set builder notation to describe the interval $[-3, 5)$.

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

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

5. (1 pt.) T F $\mathbb{R} \subset \mathbb{F}$ 6. (1 pt.) T F $\mathbb{Z} \subset \mathbb{Q}$ 7. (1 pt.) Simplify as much as possible $\frac{(3 - \sqrt{9}) - (5 - 8)}{-3}$

$$\frac{(3 - \sqrt{9}) - (5 - 8)}{-3} = \frac{(3 - 3) - (-3)}{-3} = \frac{0 - (-3)}{-3} = \frac{3}{-3} = -1$$

8. (1 pt.) Sketch the graph of the interval $(-2, 4]$ 

9. (2 pt.) Calculate the area of a triangle whose height is 5 and whose base is 3. I want to see the formula you plan to use and I want an exact answer. Not an approximation. No decimals. No mixed numbers.

$$A = \frac{1}{2}bh = \frac{1}{2}(3)(5) = \frac{15}{2}$$