MAT 090 Beginning Algebra
NAME:___________
Fall 2016 PrtTest

1. Use Prime Factorization to help you simplify the following fractions:

A) \( \frac{8}{10} \)  
B) \( \frac{28}{70} \)

2. Perform the indicated operations below. Answers should be in lowest terms (you do not need to use prime factorization). SHOW YOUR WORK.

A) \( 3 - \frac{2}{5} \)  
B) \( \frac{5}{9} + \frac{1}{12} \)

C) \( 3 \cdot \frac{5}{9} \)  
D) \( \frac{2}{9} \div \frac{3}{2} \)

E) \( 4 \frac{1}{3} - 3 \frac{1}{2} \)  
F) \( 4 \frac{1}{3} \times 3 \frac{1}{2} \)

3. State whether the following statements are TRUE or FALSE

A) \( \frac{10}{11} < \frac{6}{7} \)  
B) \( 3 > -7 \)  
C) \( -5 < -11 \)

D) \( |7| = |-7| \)  
E) \( |-4| < |7| \).
4. Use the list of numbers below to do parts A thru D.

\[-3, \frac{11}{2}, \sqrt{9}, -\frac{4}{3}, \pi, \sqrt{17}\]

A) Which numbers are rational numbers?

B) Which numbers are irrational?

C) Which numbers are integers?

D) Graph the numbers on a number line.

5. Perform the following Additions, Subtractions, Multiplications and Divisions:

A) $9 + (-4)$  
B) $9 - 4$  
C) $2 + (-5) + 6 + (-4)$  

D) $-4 - 7$  
E) $-4 + (-7)$  
F) $-10 - 5 - (-2)$  

G) $(-3)(-2)(-5)$  
H) $(-1)(-2)(-4)(-6)$  
I) $(-18) ÷ (-6)$  

J) $\frac{28}{-7}$  
K) $\frac{0}{13}$  
L) $\frac{8}{0}$