

Name: _____ Date: _____ Period: _____

Exponents Unit

Rational vs. Irrational Constructed Response

A complete response to the following questions includes:

- **Your work clearly shown so that others can understand it.**
- **A number line, diagram, or other visual (if needed)**
- **An appropriate equation or equations (if needed)**
- **Your solution to the problem.**

1. Classify the following numbers as rational or irrational. Explain why the irrational numbers are irrational. Then order the numbers from least to greatest as if they were on a number line.

$$\sqrt{24} \quad 4.16 \quad 2^2 \quad 2\sqrt{12} \quad 3\frac{7}{8} \quad \pi$$

Rational:

Irrational:

Ordering:

2. Give examples of a) repeating and b) terminating decimals. Convert them into fractions and show your process.

3. Give an example of an irrational number. Then approximate that number to the hundredths place.