College Algebra Fundamentals

Section P-1 (Part 1): Real Numbers

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**:

* Students will be able to classify subsets of real numbers.
* Students will be able to order real numbers on a number line.
* Students will be able to use inequalities to represent and interpret intervals.
* Students will be able to evaluate the absolute value of a number.

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| **Main Idea** | **Notes** |
| **Vocabulary:**  **Vocabulary:** | Real Numbers:  Subsets of Real Numbers:    Natural Numbers:  Whole Numbers:  Integers:  Two Kinds of Real Numbers:  Rational Numbers:    Irrational Numbers:  The Real Number Line:  Origin:  Negative Real Numbers:  Positive Real Numbers:  The Four Inequality Symbols and What they Mean: |
| **Bounded Intervals on the Real Number Line:** | **Interval type Notation Inequality Graph**  **Interval type Notation Inequality Graph** |
| **Unbounded Intervals on the Real Number Line:** |
| **Example 1: Rewriting Inequalities** | As a graph:  As a solution set: |
| **Vocabulary:** | Absolute Value: |
| **Example 2:**  **Simplifying Absolute Value Expressions** | Simplify each of the following:   1. |9| + |-9| 2. |13| - |-2| |
| **Vocabulary:**  **Example 3: Identifying Terms** | Properties of Absolute Value:  Distance Between two Points on the Line:  Variable:  Algebraic Expression:  Terms:  How many terms does x²- 5x +8 have? What are they? Classify them by name. |
| **Vocabulary:** | Coefficient:  Evaluating an Algebraic Expression:  Substitution Principle: |
| **Homework:** |  |