

## Prep Senior Math Standards and Benchmarks

### **Standard 1: Use a variety of strategies in the problem-solving process**

#### **Benchmarks:**

- 1.1 Draws pictures to represent problems
- 1.2 Uses discussions with teachers and other students to understand problems
- 1.3 Makes organized lists or tables of information necessary for solving a problem
- 1.4 Uses whole number models (e.g., pattern blocks, tiles, or other manipulative materials) to represent problems

### **Standard 2: Understand and apply basic and advanced properties of the concepts of numbers**

#### **Benchmarks:**

- 2.1 Understands that numerals are symbols used to represent quantities or attributes of real-world objects
- 2.2 Counts whole numbers (i.e., both cardinal and ordinal numbers)
- 2.3 Understands symbolic, concrete, and pictorial representations of numbers (e.g., written numerals, objects in sets, number lines)
- 2.4 Understands basic whole number relationships (e.g., 4 is less than 10, 30 is 3 tens)
- 2.5 Understands the concept of a unit and its subdivision into equal parts (e.g., one object, such as a candy bar, and its division into equal parts to be shared among four people)

## **Prep Senior Math Standards and Benchmarks**

### **Standard 3: Use basic and advanced procedures while performing the process of computation**

#### **Benchmarks:**

- 3.1 Adds and subtracts whole numbers
- 3.2 Solves real-world problems involving addition and subtraction of whole numbers
- 3.3 Understands basic estimation strategies (e.g., using reference sets, using front-end digits) and terms (e.g., "about," "near," "closer to," "between," "a little less than")
- 3.4 Understands the inverse relationship between addition and subtraction

### **Standard 4: Understand and apply basic and advanced properties of the concepts of measurement**

#### **Benchmarks:**

- 4.1 Understands the basic measures length, width, height, weight, and temperature
- 4.2 Understands the concept of time and how it is measured
- 4.3 Knows processes for telling time, and measuring length and weight, using basic standard and non-standard units
- 4.4 Makes quantitative estimates of familiar linear dimensions and weights, and checks them against measurements

## **Prep Senior Math Standards and Benchmarks**

### **Standard 5: Understand and apply basic and advanced properties of the concepts of geometry**

#### **Benchmarks:**

- 5.1 Understands basic properties of (e.g., number of sides, corners, square corners) and similarities and differences between simple geometric shapes
- 5.2 Understands the common language of spatial sense (e.g., "left," "right," "horizontal," "in front of")
- 5.3 Understands that geometric shapes are useful for representing and describing real world situations
- 5.4 Understand that patterns can be made by putting different shapes together or taking them apart

### **Standard 6: Understand and apply basic and advanced concepts of statistics and data analysis**

#### **Benchmarks:**

- 6.1 Collects and represents information about objects or events in simple graphs
- 6.2 Understands that one can find out about a group of things by studying just a few of them

### **Standard 7: Understand and apply basic and advanced concepts of probability**

#### **Benchmarks:**

- 7.1 Understands that some events are more likely to happen than others

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### Standard 8: Understand and apply basic and advanced properties of functions and algebra

#### Benchmarks:

- 8.1 Recognizes regularities in a variety of contexts (e.g., events, designs, shapes, sets of numbers)
- 8.2 Extends simple patterns (e.g., of numbers, physical objects, geometric shapes)