

Grade 6 Math Standards and Benchmarks

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

Benchmarks: Grade 6

- 1.1 Understand that there is no right way to solve mathematical problems but that different methods (e.g., working backward from a solution, using a similar problem type) have different advantages and disadvantages

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

Benchmarks: Grade 6

- 2.1. Understand the relationships among equivalent number representations (e.g., whole numbers, fractions, ratios, decimals, percents, exponents) and the advantages and disadvantages of each type of representation
- 2.2. Understand the characteristics and properties (e.g., order relations, relative magnitude, base ten place values) of the set of rational numbers and its subsets (e.g., whole numbers, fractions, decimals)

Standard 3: Use and apply basic and advanced properties while performing the processes of computation

Benchmarks: Grade 6

- 3.1. Understand how different algorithms work for arithmetic computations and operations
- 3.2. Select and use appropriate computational methods (e.g., mental, paper and pencil, calculator, computer) for a given situation

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

Benchmarks:

Grade 6

- 4.1. Understand the relationships among linear dimensions, perimeter and area, and the corresponding uses of units and square units of measure
- 4.2. Understand the concepts of precision and significant digits as they relate to measurement (e.g., how units indicate precision)

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

Benchmarks:

Grade 6

- 5.1. Understand the defining properties of geometric figures (eg., square, rectangle)
- 5.3. Understand the relationships between two and three-dimensional representations of a figure (e.g., scale drawing)

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

Benchmarks:

Grade 6

- 6.1. Understand the purpose and applications of graphs
- 6.2. Understand basic characteristics of measures of central tendency (i.e., mean, mode, median)
- 6.3. Understand basic characteristics of frequency and distribution (e.g., range, gaps, cluster, outliers)

Grade 6 Math Standards and Benchmarks

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

Benchmarks: Grade 6

- 7.1. Understand how predictions are based on data and probabilities (e.g., the difference between predictions based on theoretical probability and experimental probability)

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

Benchmarks: Grade 6

- 8.1. Know that an expression is a mathematical statement using numbers and symbols to represent relationships and real world situations (e.g., equations and inequalities with or without variables)