

***Objective(s)** *Students will be able to:*

1. Graph and order real numbers.
 2. Identify and use properties of real numbers.
 3. Evaluate algebraic expressions.
 4. Simplify algebraic expressions.Solve equations.
 5. Solve problems by writing equations.
 6. Solve and graph inequalities.
 7. Solve and write compound inequalities.
 8. Solve absolute value equations & inequalities.
 9. Find experimental probabilities.
 10. Find theoretical probabilities.
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ODE Standard, Grade Band Benchmark and/or Grade Level Indicator(s)

Number, Number Sense and Operations

8-10 / B. Identify subsets of the real number system.

8-10 / D. Connect physical, verbal and symbolic representations of integers, rational numbers and irrational numbers.

8-10 / G. Estimate, compute and solve problems involving real numbers, including ratio, proportion and percent, and explain solutions.

Grade 8 / 2. Recognize that natural numbers, whole numbers, integers, rational numbers and irrational numbers are subsets of the real number system.

Grade 9 / 2. Compare, order and determine equivalent forms for rational and irrational numbers.

Grade 9 / 4. Demonstrate fluency in computations using real numbers.

Grade 10 / 1. Connect physical, verbal and symbolic representations of irrational numbers.

Patterns, Functions, and Algebra

8-10 / C. Translate information from one representation (words, table, graph or equation) to another representation of a relation or function.

8-10 / D. Use algebraic representations, such as tables, graphs, expressions, functions and inequalities, to model and solve problem situations.

8-10 / F. Solve and graph linear equations and inequalities.

Grade 8 / 7. Use symbolic algebra (equations and inequalities), graphs and tables to represent situations and solve problems.

Grade 8 / 9. Solve linear equations and inequalities graphically, symbolically and using technology.

Grade 9 / 12. Simplify rational expressions by eliminating common factors and applying properties of integer exponents.

Grade 10 / 3. Solve equations and formulas for a specified variable; e.g., express the base of a triangle in terms of the area and height.

Grade 10 / 6. Solve equations and inequalities having rational expressions as coefficients and solutions.

Grade 10 / 10. Solve real-world problems that can be modeled using linear, quadratic, exponential or square root functions.

Data Analysis and Probability

Grade 8-10 / J. Compute probabilities of compound events, independent events, and simple dependent events.

Grade 8-10 / K. Make predictions based on theoretical probabilities and experimental results.

Mathematical Processes

Grades 8-10/ A, B, C, D, E, F, G, H

Grades 11-12 / H, J

Assignments:

- **1.1 #1-11, 13-77 EOO, 79-83, 85-89, 1.2 # 1-45 EOO, 46-53**
- **1.3 # 1-63 EOO, 52, 65, 66**
- **1.4 # 4-33 ODD, 36-40 EVEN, 51-55, (62-69)***
- **1.5 # 1-15, 34-43, 61-63**
- **1.5 # 16-33, 40-60, 64-66**
- **1.6 # 1-45 ODD, (52-63)**
- **Chapter 1 Practice Test Worksheet**