Chapter 1: Drawing Conclusions from Data: Analyzing Data, Standard Deviation, Samples and Surveys, Normal Distribution


Chapter 3: Quadratic Functions and Equations (a lot of review from math 2) Quadratic Functions and Transformations, Standard form, Factoring, Quadratic Equations, Completing the square, Quadratic Formula, Quadratic Systems, A new look at parabolas (math 2 and 3), Circles in Coordinate plane (math 2 and 3), *Teacher supplement: Conics Hyperbola and Ellipses for phase 5.*

Chapter 4: Polynomials and Polynomial Functions: Even and Odd Polynomials, Adding, Subtracting, and Multiplying polynomials, Factoring Polynomials and zeros, Solving polynomial equations, Dividing Polynomials, Theorems about Roots of Polynomials, Fundamental Theorem of Algebra, Binomial Theorem, Polynomial models, Transforming polynomial functions

Chapter 5: Rational Expressions and Functions: Simplifying Rational Expressions, Multiplying and Dividing Rational Expressions, Adding and Subtracting Rational Expressions, Inverse Variation, The Reciprocal Function family, Rational Functions and their graphs, Solving Rational Equations

Chapter 6: Radical Expressions and Functions: Roots and Radical Expressions, Multiplying and Dividing, Binomial Radical Expressions, Rational Exponents, Solving Radical equations, Function Operations, Inverse Relations and Functions, Graphing Radical Functions.

Chapter 7: Exponential and Logarithmic Functions: Exponential Models, Properties of Exponential Functions, Logarithmic functions as Inverses, Properties of Logarithms, Exponential and Logarithmic equations, Natural Log


Chapter 9: Sequences and Series: Mathematical Patterns, Arithmetic Sequence, Geometric Sequence, Arithmetic Series, Geometric Series

Chapter 10: Applying Geometric concepts: Applying Constructions, Solving Density and Design Problems, Perimeters and Areas of Similar Figures, Geometric Probability, Space figures and cross sections, Areas and Volumes of Similar Solids, Locus: A set of points
Chapter 12: Circles: Circles and Arcs, Areas of circles and Sectors, Tangent Lines, Chords and Arcs, Inscribed Angles, Angle Measures and Segment lengths