

Math III (Traditional 8th Grade)

Unit 1

Rational Numbers

Powers and Exponents

Multiply and Divide Monomials (exponents)

Powers of Monomials (exponents)

Negative Exponents

Scientific Notation

Compute with Scientific Notation

Roots (squares but not cubes)

Estimate roots

Compare Real Numbers

Unit 2

Solve Equations with Rational

Coefficients

Solve 2 step equations

Write two step equations

Solve equations with variables on each

side

Solve multi-step equations

Unit 6

Translations

Reflections across vertical and horizontal lines

Rotations

Dilations

Unit 7

Congruence and Transformations

Congruence

Similarity and Transformations

Properties of Similar Polygons

Similar Triangles and Indirect Measurement

Slope and Similar Triangles

Area and Perimeter of Similar Figures

Unit 3**Constant rate of change****Slope****Equations in $y=mx$ (direct variation)****Slope intercept form****Graph a line using intercepts & Standard****Form (Writing equations & converting****to slope intercept)****Write linear equations & pt. slope form****(from table, graph, Points, story, pt & slope)****Solve systems of equations by graphing****Solve systems of equations algebraically****Unit 4****Represent Linear Relationships**

Relations (domain and range) ???

Functions**Linear Functions****Compare properties of functions****Construct Functions****Linear and Nonlinear functions****Quadratic Functions**

Qualitative Graphs

Unit 5

Lines and angles

Geometric Proof

Angles of Triangles

Polygons and Angles

Pythagorean Theorem**Using the Pythagorean Theorem****Distance on a coordinate Plane****Unit 8**

Volume of Cylinders

Volume of Cones

Volume of Spheres

Surface area of Cylinders

Surface Area of Cones

Change in dimensions (comparing surface
area and volume of shapes)**Unit 9****Scatter Plots****Line of Best Fit**

Two Way Tables

Descriptive Statistics**(mean, median, mode, box and whisker
plots)**

Measures of Variation (standard deviation)

Analyze data distribution