3501.0745 GRADES 9 THROUGH 11 STANDARDS.

Subpart 1. **Algebra.**

A. The student will understand the concept of function, and identify important features of functions and other relations using symbolic and graphical methods where appropriate.

B. The student will recognize linear, quadratic, exponential, and other common functions in real-world and mathematical situations. The student will represent these functions with tables, verbal descriptions, symbols, and graphs. The student will solve problems involving these functions, and explain results in the original context.

C. The student will generate equivalent algebraic expressions involving polynomials and radicals. The student will use algebraic properties to evaluate expressions.

D. The student will represent real-world and mathematical situations using equations and inequalities involving linear, quadratic, exponential, and n^{th} root functions. The student will solve equations and inequalities symbolically and graphically. The student will interpret solutions in the original context.

Subp. 2. **Geometry and measurement.**

A. The student will calculate measurements of plane and solid geometric figures. The student will know that physical measurements depend on the choice of a unit and that they are approximations.

B. The student will construct logical arguments based on axioms, definitions, and theorems in order to prove theorems and other results in geometry.

C. The student will know and apply properties of geometric figures to solve real-world and mathematical problems and to logically justify results in geometry.

D. The student will solve real-world and mathematical geometric problems using algebraic methods.

Subp. 3. **Data analysis and probability.**

A. The student will display and analyze data. The student will use various measures associated with data to draw conclusions, identify trends, and describe relationships.

B. The student will explain the uses of data and statistical thinking to draw inferences, make predictions, and justify conclusions.

C. The student will calculate probabilities and apply probability concepts to solve real-world and mathematical problems.

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