

Integrated Math

Patterns, Functions and Algebra

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

Data Analysis and Probability

A 2. Represent and analyze bivariate data using appropriate graphical displays (scatter plots, parallel box and whisker plots, histograms with more than one set of data, tables, charts, spreadsheets) with and without technology.

A 4. Identify outliers on a data display; e.g., use the interquartile range to identify outliers on a box-and whisker plot.

C 1. Describe measures of center and the range verbally, graphically and algebraically.

D 6. Interpret the relationship between two variables using multiple graphical displays and statistical measures; e.g., scatter plots, parallel box-and whisker plots, and measures of center and spread.

G 5. Provide examples and explain how a statistic may or may not be an attribute of the entire population; e.g., intentional or unintentional bias may be present.

J 7. Model problems dealing with uncertainty with area models (geometric probability).

K 8. Differentiate and explain the relationships between the probability of an event and the odds of an event, and compute one given the other.

Algebra I

Patterns, Functions and Algebra

D 5. Solve simple linear and nonlinear equations and inequalities having square roots as coefficients and solutions.

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

H 7. Solve systems of linear inequalities.

H 11. Solve real-world problems that can be modeled using linear; quadratic, exponential or square root functions

Algebra II

Geometry

Geometry and Spatial Sense

A1. Formally define and explain key aspects of geometric

figures, including:

d. circles (radius, diameter, chord, circumference, major arc, minor arc, sector, segment inscribed angle)

A 10. Solve problems involving chords, radii, and arcs within the same circle. (geometric figures)

C 10. Solve problems involving chords, radii, and arcs within the same circle. (angles)

H 3. Make, test and establish the validity of conjectures about geometric properties and relationships using counterexample, inductive and deductive reasoning, and paragraph or two-column proof, including:

b. prove theorems involving triangle similarity and congruence

c. prove theorems involving properties of lines, angles, triangles and quadrilaterals.

H 10. Solve problems involving chords, radii and arcs within the same circle.

I. Use right triangle trigonometric relationships to determine lengths and angle measures.

Patterns, Functions and Algebra

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

D 5. Solve simple linear and nonlinear equations and inequalities having square roots as coefficients and solutions.
J 12. Describe the relationship between slope of a line through the origin and the tangent function of the angle created by the line and the positive x-axis.

Number, Number Sense and Operations

D 1. Connect physical, verbal and symbolic representations of irrational numbers; e.g., construct $\sqrt{2}$ as a hypotenuse or on a number line.

Measurement

D 5. Determine the measures of central and inscribed angles and their associated major and minor arcs.