

Essential Elements Mathematics for High School

Number and Quantity -
The Real Number
System

1. Determine the value of a quantity that is squared or cubed. [EE.N-RN.1](#)

Number and Quantity -
Quantities

1-3. Express quantities to the appropriate precision of measurement. [EE.N-Q.1-3](#)

Number and Quantity -
The Complex Number
System

Number and Quantity - The Complex Number System

Use the commutative,
associative, and
distributive properties
to add, subtract, and
multiply whole
numbers. [EE.N.CN.2](#)

a. Use the commutative, associative, and distributive properties to add, subtract, and multiply whole numbers. [EE.N.CN.2](#)

Solve real-world
problems involving
addition and subtraction
of decimals, using
models when
needed. [EE.N.CN.2](#)

b. Solve real-world problems involving addition and subtraction of decimals, using models when needed. [EE.N.CN.2](#)

Solve real-world
problems involving
multiplication of
decimals and whole
numbers, using models
when needed. [EE.N.CN.2](#)

c. Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed. [EE.N.CN.2](#)

Algebra - Seeing
Structure in Expressions

1. Identify an algebraic expression involving one arithmetic operation to represent a real-world problem. [EE.A-SSE.1](#)

2. Not Applicable [EE.A-SSE.2](#)

3. Solve simple algebraic equations with one variable using multiplication and division. [EE.A-SSE.3](#)

4. Determine the successive term in a geometric sequence given the common ratio. [EE.A-SSE.4](#)

Algebra - Creating Equations

1. Create an equation involving one operation with one variable, and use it to solve a real-world problem. [EE.A-CED.1](#)

2-4. Solve one-step inequalities. [EE.A-CED.2-4](#)

Algebra - Reasoning with Equations and Inequalities

10-12. Interpret the meaning of a point on the graph of a line. For example, on a graph of pizza purchases, trace the graph to a point and tell the number of pizzas purchased and the total cost of the pizzas. [EE.A-REI.10-12](#)

Functions - Interpreting Functions

1-3. Use the concept of function to solve problems. [EE.F-IF.1-3](#)

4-6. Construct graphs that represent linear functions with different rates of change and interpret which is faster/slower, higher/lower, etc. [EE.F-IF.4-6](#)

Functions - Building Functions

1. Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change. [EE.F-BF.1](#)

2. Determine an arithmetic sequence with whole numbers when provided a recursive rule. [EE.F-BF.2](#)

Functions - Linear, Quadratic, and Exponential Models

1-3. Model a simple linear function such as $y = mx$ to show that these functions increase by equal amounts over equal intervals. [EE.F-LE.1-3](#)

Geometry - Congruence

1. Know the attributes of perpendicular lines, parallel lines, and line segments; angles; and circles. [EE.G-CO.1](#)

2-3. Not Applicable [EE.G-CO.2-3](#)

4-5. Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent. [EE.G-CO.4-5](#)

6-8. Identify corresponding congruent and similar parts of shapes. [EE.G-CO.6-8](#)

Geometry - Expressing Geometric Properties with Equations

1-6. Not Applicable [EE.G-GPE.1-6](#)

7. Find perimeters and areas of squares and rectangles to solve real world problems. [EE.G-GPE.7](#)

Geometry - Geometric Measurement and Dimension

- 1-3.** Make a prediction about the volume of a container, the area of a figure, and the perimeter of a figure, and then test the prediction using formulas or models. [EE.G-GMD.1-3](#)
- 4.** Identify the shapes of two dimensional cross-sections of three dimensional objects. [EE.G-GMD.4](#)

Geometry - Modeling with Geometry

- 1-3.** Use properties of geometric shapes to describe real-life objects. [EE.G-MG.1-3](#)

Statistics and Probability - Interpreting Categorical and Quantitative Data

- 1-2.** Given data, construct a simple graph (line, pie, bar, or picture) or table, and interpret the data. [EE.S-ID.1-2](#)
- 3.** Interpret general trends on a graph or chart. [EE.S-ID.3](#)
- 4.** Calculate the mean of a given data set (limit the number of data points to fewer than five). [EE.S-ID.4](#)

Statistics and Probability - Making Inferences and Justifying Conclusions

- 1-2.** Determine the likelihood of an event occurring when the outcomes are equally likely to occur. [EE.S-IC.1-2](#)

Statistics and Probability - Conditional Probability and the Rules of Probability

- 1-5.** Identify when events are independent or dependent. [EE.S-CP.1-5](#)