

# 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](#)

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

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

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**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](#)

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

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**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](#)

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**Functions - Interpreting Functions**

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

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**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](#)

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**Functions - Building Functions**

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

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

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**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](#)

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**Geometry - Congruence**

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

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

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**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](#)

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

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**Geometry - Expressing Geometric Properties with Equations**

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

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

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**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](#)