**COURSE DESCRIPTION**

**Course Title:** Advanced Math 7

**Course Number:** 00205

**Course Prerequisites:** Completion of Mathematics Grade 6 with at least an 85% average in class. In addition, students must meet district required benchmarks on two Placement Tests.

**Course Description:** In the course, Advanced Mathematics 7, students’ learning will be focused on the major topics: The Number System, Expressions & Equations, Functions, Exponents, Ratio & Proportional Relationships, Probability, Geometry and Data Analysis. The pace and rigor of this course will establish the path to reach advanced mathematics in high school. Students will take the Grade 7 PSSA Math Exam. District marking period assessments are required.

**Suggested Grade Level**: Grade 7

**Length of Course:** Two Semesters

**Units of Credit:** 1

**PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:**

CSPG #50 Mathematics (7-12), CSPG #53 Middle Level Mathematics (6-9),   
CSPG #70 Grades 4 – 8 (All subjects 4-6, Mathematics 7-8)

To find the CSPG information, go to [CSPG](https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx)

**Certification verified by the WCSD Human Resources Department:** Yes No

**WCSD STUDENT DATA SYSTEM INFORMATION**

**Course Level:** Academic

**Mark Types:** Check all that apply.

F – Final Average MP – Marking Period EXM – Final Exam

**GPA Type**:  GPAEL-GPA Elementary  GPAML-GPA for Middle Level  NHS-National Honor Society

UGPA-Non-Weighted Grade Point Average  GPA-Weighted Grade Point Average

**State Course Code**: 02051

To find the State Course Code, go to [State Course Code](https://nces.ed.gov/forum/sced.asp), download the Excel file for *SCED*, click on SCED 6.0 tab, and choose the correct code that corresponds with the course.

**TEXTBOOKS AND SUPPLEMENTAL MATERIALS**

**Board Approved Textbooks, Software, and Materials:**

**Title:**  *Modeling Real Life Common Core – Grade 7 Advanced*

**Publisher:** Cengage Learning – Big Ideas Math

**ISBN #:**  978-1-64245-229-7

**Copyright Date:** 2019

**WCSD Board Approval Date:** 6/29/2020

**Supplemental Materials:** *enVisionmath 2.0 Grade 7 SAVVAS Learning Company LLC. 2017*,   
 *enVisionmath 2.0 Grade 8 SAVVAS Learning Company LLC. 2017*  
 Kuta Software, Get More Math, SAS pdesas.org, Brainfuse, IXL,  
 Calculator: TI-30XIIS, Online Calculator: DESMOS

**Curriculum Document**

**WCSD Board Approval:**

**Date Finalized:** 5/22/2023

**Date Approved:**  6/12/2023

**Implementation Year:** 2023-2024

**SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS**

The teacher shall make appropriate modifications to instruction and assessment based on a student’s Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

**SCOPE AND SEQUENCE OF CONTENT, AND CONCEPTS**

**Marking Period 1: The Number System and Expressions, Equations and Inequalities, and   
 Graphs of Linear Equations**

* Integers and Rational Numbers
* Algebraic and Equivalent Expressions
* Operations with Expressions
  + Expansion and Factorization
  + Sum and Difference
  + Application
* Equations
  + Simple Equations
  + Multi-Step Equations
  + Equations with Variables on Both Sides
* Inequalities
  + One-Step Inequalities and Graphing
  + Multi-Step Inequalities and Graphing
* Graphs of Linear Equations
* Slope of a Line
* Graphs of Proportional Relationships
* **Marking Period 1 Review and Assessment**

**Marking Period 2: Forms of Linear Equations, Systems of Linear Equations, Ratios and   
 Proportional Relationships, and Relations and Functions**

* Linear Equations
  + Slope-Intercept Form
  + Equations in Point-Slope Form
* System of Linear Equations
  + Graphs
  + Substitution
  + Elimination
  + Special Systems
* Ratios, Rates, and Unit Rates
* Proportional Relationships
* Graphs of Proportional Relationships
* Percent Proportion
* Percent Equation
* Relations and Functions
* Representations of Functions
* **Marking Period 2 Review and Assessment**

**Marking Period 3: Linear Function, Statistics, Probability, and Geometry**

* Linear Functions
* Comparison of Linear and Nonlinear Functions
* Analysis and Sketches of Graphs
* Populations and Random Samples
* Inferences:
  + From Data
  + Comparative
* Probability:
  + Likelihood
  + Theoretical and Experimental
  + Models
  + Compound Events
* Geometric Figures and Their Properties
* Angle Properties and Their Measures
* Parallel Lines and Transversals
* Circles
* Surface Area
* **Marking Period 3 Review and Assessment**

**Marking Period 4: Geometry: Volume, Grade 7 Math PSSA Preparation and Assessment,   
 Exponents and Scientific Notation, Real Numbers and the Pythagorean   
 Theorem, Geometry: Surface Area and Volume, Geometry:   
 Transformations and Mathematics Placement Exam for Algebra 1 Honors   
 Grade 8**

* Surface Area
* Volume
* **Grade 7 PSSA Math Preparation and Assessment**
* Exponents
  + Exponent Properties
  + Product of Powers Property
  + Quotient of Powers Property
  + Zero and Negative Exponents
* Estimation of Quantities
* Scientific Notation
* Operations in Scientific Notation
* Square Roots
* The Pythagorean Theorem
* Cube Roots
* Rational and Irrational Numbers
* The Converse of the Pythagorean Theorem
* Volume:
  + Cylinders
  + Cones
  + Spheres
* Similar Solids: Surface Area and Volume
* Translations
* Reflections
* Rotations
* **Mathematics Placement Exam for Algebra 1 Honors Grade 8**
* **Marking Period 4 Review and Assessment**

**Standards/Eligible Content and Skills**

| **Performance Indicator** | **PA Core Standard and/or Eligible Content** | **Marking Period Taught** |
| --- | --- | --- |
| Add, subtract, multiply, and divide integers | M07.A-N.1.1.1 | MP1 |
| Add, subtract, multiply, and divide rational numbers, including  real-world contexts | M07.A-N.1.1.1  M07.A-N.1.1.3 | MP1 |
| Represent addition and subtraction of rational numbers on a horizontal or vertical number line | M07.A-N.1.1.2 | MP1 |
| Solve real-world and mathematical problems involving the four operations with rational numbers; determine the reasonableness of the answer(s) | M07.A-N.1.1  M07.B-E.2.3.1 | MP1 |
| Use the order of operations to generate equivalent expressions | M07.B-E.1.1.1 | MP1 |
| Apply the properties of operations to adding, subtracting, factoring, and expansion to linear expressions with rational coefficients | M07.B-E.1.1.1 | MP1 |
| Solve equations using addition and subtraction with rational numbers | M07.B-E.2.1  M07.B-E.2.1.1 | MP1 |
| Solve equations using multiplication and division with rational numbers | M07.B-E.2.1  M07.B-E.2.1.1 | MP1 |
| Use one-step simple equations to solve real-world and mathematical problems with rational numbers; determine the reasonableness of the answer(s) | M07.B-E.2.2  M07.B-E.2.2.1  M07.B-E.2.3.1 | MP1 |
| Identify the solution of an equation | M07.B-E.2.3.1 | MP1 |
| Solve a two-step equation with rational numbers | M07.B-E.2.1 | MP1 |
| Solve a multi-step equation with rational numbers | M07.B-E.2.1 | MP1 |
| Solve multi-step real-world and mathematical problems | M07.B-E.2.2  M07.B-E.2.2.1  M07.B-E.2.3.1 | MP1 |
| Use the Distributive Property to solve an equation with rational numbers | M07.B-E.2.1  M08.B-E.3.1.2 | MP1 |
| Solve an equation with variables on both sides | M07.B-E.2.1  M08.B-E.3.1.2 | MP1 |
| Use the Distributive Property to solve equations with variables on both sides | M07.B-E.2.1  M08.B-E.3.1.2 | MP1 |
| Solve an equation with no solution or infinitely many solutions | M07.B-E.2.3.1  M08.B-E.3.1.1 | MP1 |
| Write and solve real-world and mathematical problems involving equations; determine the reasonableness of the answer(s) | M07.B-E.2.2  M07.B-E.2.1.1  M07.B-E.2.3.1 | MP1 |
| Review: Solve one-step inequalities | M07.B-E.2.2.1 | MP1 |
| Solve two-step inequalities | M07.B-E.2.2.1  CC.2.2.HS.D.10 | MP1 |
| Write and solve real-world and mathematical problems involving multi-step inequalities; determine the reasonableness of the answer(s) | M07.B-E.2.2  M07.B-E.2.2.2  M07.B-E.2.3.1 | MP1 |
| Graph inequalities on number lines | M07.B-E.2.2.2  CC.2.2.HS.D.10 | MP1 |
| Graph linear equations using tables | M08.B-E.3.1  M08.B-E.3.1.1 | MP1 |
| Graph horizontal lines and vertical lines | M08.B-E.3.1  M08.B-E.3.1.1 | MP1 |
| Find the slopes of lines | M08.B-E.2.1  M08.B-E.2.1.1  M08.B-E.3.1  M08.B-E.3.1.1 | MP1 |
| Find the slopes of horizontal lines and vertical lines | M08.B-E.2.1  M08.B-E.2.1.1  M08.B-E.3.1  M08.B-E.3.1.1 | MP1 |
| Identify parallel lines | M08.B-E.2.1  M08.B-F.2.1.1  M08.B-E.3.1  M08.B-E.3.1.1 | MP1 |
| Graph proportional relationships | M08.B-E.3.1  M08.B-E.2.1.1  CC.2.2.8.B.2 | MP1 |
| Write and use an equation that represents a proportional situation | M08.B-E.3.1  M08.B-E.2.1.1  CC.2.2.8.B.2 | MP1 |
| **Marking Period 1 Review and Assessment** |  | **MP1** |
| * Review and demonstrate knowledge of The Number System and Expressions |  | MP1 |
| * Review and demonstrate knowledge of Equations and Inequalities |  | MP1 |
| * Review and demonstrate knowledge of Graphs of Linear Equations |  | MP1 |
| Identify slopes and y-intercepts | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Graph a linear equation in slope-intercept form | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Graph a linear equation using intercepts | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Write equations in slope-intercept form | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Write an equation from a graph and/or table (two points) | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Write an equation using a slope and a point | M08.B-E.2.1.3  M08.B-E.3.1 | MP2 |
| Solve and check a system of linear equations by graphing | M08.B-E.3.1  M08.D-S.3.1.3  M08.D-S.3.1.4  M07.B-E.2.3.1 | MP2 |
| Solve and check a system of linear equations by substitution | M08.B-E.3.1  M08.D-S.3.1.3  M08.D-S.3.1.4  M07.B-E.2.3.1 | MP2 |
| Solve and check a system of linear equations by elimination | M08.B-E.3.1  M08.D-S.3.1.3  M08.D-S.3.1.4  M07.B-E.2.3.1 | MP2 |
| Solve and check systems of linear equations with no solutions and infinitely many solutions | M08.B-E.3.1  M08.D-S.3.1.4  M07.B-E.2.3.1 | MP2 |
| Solve real-world and mathematical problems leading to two linear equations in two variables; determine the reasonableness of the answer(s) | M08.B-E.3.1  M08.B-E.3.1.5  M07.B-E.2.3.1 | MP2 |
| Analyze, recognize, and represent proportional relationships and use them to solve real-world and mathematical problems; determine the reasonableness of the answer(s) | M07.A-R.1.1  M07.B-E.2.3.1 | MP2 |
| Compute unit rates associated with ratios of fractions, including ratio lengths, areas, and other quantities measured in like or different units | M07.A-R.1.1.1 | MP2 |
| Determine whether two quantities are proportionally related | M07.A-R.1.1.2 | MP2 |
| Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships | M07.A-R.1.1.3 | MP2 |
| Represent proportional relationships by equations | M07.A-R.1.1.4 | MP2 |
| Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r), where r is the unit rate | M07.A-R.1.1.5 | MP2 |
| Use proportional relationships to solve multi-step ratio problems | M07.A-R.1.1.6 | MP2 |
| Solve real world and mathematical multi-step ratio problems applying proportional relationships:  Examples: Simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease. | M07.A-R.1.1.6 | MP2 |
| Represent and solve percent problems using the percent equation | M07.A-R.1.1.6 | MP2 |
| Solve real world and mathematical problems using the percent proportion and percent equation: Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease. | M07.A-R.1.1.5  M07.A-R.1.1.6 | MP2 |
| Solve real-world and mathematical proportion problems:  Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease. | M07.A-R.1.1.2  M07.A-R.1.1.3  M07.A-R.1.1.4 | MP2 |
| Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships | M07.A-R.1.1.3 | MP2 |
| Solve real-world and mathematical problems involving rate and unit rate; examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease. | M07.A-R.1.1.1 | MP2 |
| List ordered pairs of relations | M08.B-F.1.1.1 | MP2 |
| Determine whether relations are functions | M08.B-F.1.1.1 | MP2 |
| Write functions rules | M08.B-F.1.1.1 | MP2 |
| Evaluate functions | M08.B-F.1.1.1 | MP2 |
| Graph functions | M08.B-F.1.1.1 | MP2 |
| **Marking Period 2 Review and Assessment** |  | **MP2** |
| * Review and demonstrate knowledge of Forms of Linear Equations |  | MP2 |
| * Review and demonstrate knowledge of Systems of Linear Equations |  | MP2 |
| * Review and demonstrate knowledge of Ratios and Proportional Relationships |  | MP2 |
| * Review and demonstrate knowledge of Relations and Functions |  | MP2 |
| Write a linear function using a graph | M08.B-F.2.1.1 | MP3 |
| Write a linear function using a table | M08.B-F.2.1.1 | MP3 |
| Interpret a linear function | M08.B-F.1.1.3 | MP3 |
| Identify functions from tables | M08.B-F.1.1.1 | MP3 |
| Identify functions from equations | M08.B-F.1.1.1 | MP3 |
| Identify functions from graphs | M08.B-F.1.1.1 | MP3 |
| Analyze graphs | M08.B-F.1.1.2 | MP3 |
| Sketch graphs | M08.B-F.1.1.2 | MP3 |
| Determine whether a sample is a random sample given real-world and mathematical problems | M07.D-S.1.1.1 | MP3 |
| Use data from a random sample to draw inferences about a population with an unknown characteristic of interest | M07.D-S.1.1.2 | MP3 |
| Compare two numerical data distributions using measure of center and variability | M07.D-S.2.1.1 | MP3 |
| Predict or determine whether some outcomes are certain, more likely, less likely, or impossible | M07.D-S.3.1.1 | MP3 |
| Use probability to predict outcomes; determine the probability of a chance event given relative frequency; predict the approximate relative frequency given the probability | M07.D-S.3.2.1 | MP3 |
| Find the theoretical probability of an event | M07.D-S.3.2.1  M07.D-S.3.2.2 | MP3 |
| Find the experimental probability of an event | M07.D-S.3.2.1  M07.D-S.3.2.2 | MP3 |
| Find the probability of a simple event, including the probability of a simple event NOT occurring | M07.D-S.3.2.2 | MP3 |
| Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulation | M07.D-S.3.2.3 | MP3 |
| Use the Fundamental Counting Principal to determine the number of outcomes in real-world and mathematical problems | M07.D-S.3.2 | MP3 |
| Solve real-world and mathematical problems involving scale drawings or geometric figures; determine the reasonableness of the answer(s) | M07.C-G.1.1.1  CC.2.3.7.A.2  M07.B-E.2.3.1 | MP3 |
| Solve real-world and mathematical problems finding length and area of geometric figures; determine the reasonableness of the answer(s) | M07.C-G.1.1.1  CC.2.3.7.A.2  M07.B-E.2.3.1 | MP3 |
| Identify or describe the properties of all types of triangles based on angle and side measures | M07.C-G.1.1.2  CC.2.3.7.A.2 | MP3 |
| Use and apply the Triangle Inequality Theorem | M07.C-G.1.1.3 | MP3 |
| Describe two-dimensional figures that result from slicing  three-dimensional figures | M07.C-G.1.1.4  CC.2.3.7.A.2 | MP3 |
| Identify and use properties of supplementary, complementary, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure; determine the reasonableness of the answer(s) | M07.C-G.2.1.1  CC.2.3.7.A.1  M07.B-E.2.3.1 | MP3 |
| Identify and use properties of angles formed when two parallel lines are cut by a transversal (Alternate Interior, Alternate exterior, Vertical, Corresponding) | M07.C-G.2.1.2  CC.2.3.7.A.1 | MP3 |
| Find the area of a circle | M07.C-G.2.2.1  CC.2.3.7.A.1 | MP3 |
| Find the circumference of a circle | M07.C-G.2.2.1  CC.2.3.7.A.1 | MP3 |
| Solve problems involving area and circumference of circles | M07.C-G.2.2.1  CC.2.3.7.A.1 | MP3 |
| Solve real-world and mathematical problems involving the area of two-dimensional figures composed of triangles, quadrilaterals, polygons, and circles; determine the reasonableness of the answer(s) | M07.C-G.2.2.2  CC.2.3.7.A.1  M07.B-E.2.3.1 | MP3 |
| Find the surface area of right prisms and cubes | M07.C-G.2.2.2  CC.2.3.7.A.1 | MP3 |
| **Marking Period 3 Review and Assessment** |  | **MP3** |
| * Review and demonstrate knowledge of Linear Functions |  | MP3 |
| * Review and demonstrate knowledge of Statistics |  | MP3 |
| * Review and demonstrate knowledge of Probability |  | MP3 |
| * Review and demonstrate knowledge of Geometry |  | MP3 |
| Find the surface area of right prisms and cubes | M07.C-G.2.2.2  CC.2.3.7.A.1 | MP4 |
| Find the volume of right prisms and cubes | M07.C-G.2.2.2  CC.2.3.7.A.1 | MP4 |
| Solve real-world and mathematical problems involving surface area and volume of three-dimensional objects composed of right prisms and cubes; determine the reasonableness of the answer(s) | M07.C-G.2.2.2  CC.2.3.7.A.1  M07.B-E.2.3.1 | MP4 |
| **Grade 7 PSSA Math Preparation and Assessment** |  | **MP4** |
| * Review and demonstrate knowledge of The Number System | M07.A-N.1.1 | MP4 |
| * Review and demonstrate knowledge of Ratios and Proportional Relationships | M07.A-R.1.1 | MP4 |
| * Review and demonstrate knowledge of Expressions and Equations | M07.B-E.1.1  M07.B-E.2.1  M07.B-E.2.2  M07.B-E.2.3 | MP4 |
| * Review and demonstrate knowledge of Geometry | M07.C-G.1.1  M07.C-G.2.1  M07.C-G.2.2 | MP4 |
| * Review and demonstrate knowledge of Statistics and Probability | M07.D-S.1.1  M07.D-S.2.1  M07.D-S.3.1  M07.D-S.3.2 | MP4 |
| Write expressions using exponents | M08.B-E.1.1.1 | MP4 |
| Use the order of operations to evaluate numeric expressions containing exponents | M08.B-E.1.1.1 | MP4 |
| Multiply powers with the same base | M08.B-E.1.1.1 | MP4 |
| Find the power of a power | M08.B-E.1.1.1 | MP4 |
| Find the power of a product | M08.B-E.1.1.1 | MP4 |
| Divide powers with the same base | M08.B-E.1.1.1 | MP4 |
| Simplify an exponential expression | M08.B-E.1.1.1 | MP4 |
| Evaluate expressions with negative exponents | M08.B-E.1.1.1 | MP4 |
| Approximate a large number | M08.B-E.1.1.3 | MP4 |
| Approximate a small number | M08.B-E.1.1.3 | MP4 |
| Approximate a quantity | M08.B-E.1.1.3 | MP4 |
| Write numbers in scientific notation | M08.B-E.1.1.3 | MP4 |
| Write numbers in standard form | M08.B-E.1.1.3 | MP4 |
| Perform operations with numbers expressed in scientific notation: addition, subtraction, multiplication, division | M08.B-E.1.1.4 | MP4 |
| Find the square roots of perfect squares | M08.B-E.1.1.2 | MP4 |
| Evaluate expressions involving square roots | M08.B-E.1.1.2 | MP4 |
| Solve equations using square roots | M08.B-E.1.1.2 | MP4 |
| Find the side lengths of a right triangle using the Pythagorean Theorem | M08.C-G.2.1.2  CC.2.3.8.A.3 | MP4 |
| Find the lengths of three-dimensional figures using the Pythagorean Theorem | M08.C-G.2.1.2  CC.2.3.8.A.3 | MP4 |
| Apply the Pythagorean Theorem to find the distance between two points in a coordinate plane | M08.C-G.2.1.3  CC.2.3.8.A.3 | MP4 |
| Find cube roots | M08.B-E.1.1.2 | MP4 |
| Evaluate expressions involving cube roots | M08.B-E.1.1.2 | MP4 |
| Solve equations using cube roots | M08.B-E.1.1.2 | MP4 |
| Write fractions and mixed numbers as decimals | M08.B-E.1.1.2 | MP4 |
| Write a repeating decimal as a fraction | M08.B-E.1.1.2 | MP4 |
| Classify real numbers | M08.A-N.1.1.1 | MP4 |
| Approximate irrational numbers | M08.A-N.1.1.3 | MP4 |
| Compare irrational numbers | M08.A-N.1.1.4 | MP4 |
| Locate/identify rational and irrational numbers at their appropriate locations on a number line | M08.A-N.1.1.5 | MP4 |
| Use the Converse of the Pythagorean Theorem | M08.C-G.2.1.1  CC.2.3.8.A.3 | MP4 |
| Identify right triangles using the Converse of the Pythagorean Theorem | M08.C-G.2.1.1  CC.2.3.8.A.3 | MP4 |
| Find the volume, height, and radius of a cylinder | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Solve real-world and mathematical volume problems of cylinders | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Find the volume, radius, and height of a cone | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Solve real-world and mathematical volume problems of cones | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Find the volume and radius of a sphere | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Solve real-world and mathematical problems of spheres | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Identify similar solids (No pyramids) | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Find missing measures in similar solids (No pyramids) | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Find the volume of similar solids (No pyramids) | M08.C-G.2.1.1  CC.2.3.8.A.1 | MP4 |
| Identify a translation | M08.C-G.1.1.1  CC.2.3.8.A.2 | MP4 |
| Translate a figure in the coordinate plane | M08.C-G.1.1.1  M08.C-G.1.1.3  CC.2.3.8.A.2 | MP4 |
| Identify reflections | M08.C-G.1.1.1  CC.2.3.8.A.2 | MP4 |
| Reflect figures in the coordinate plane | M08.C-G.1.1.1  M08.C-G.1.1.3  CC.2.3.8.A.2 | MP4 |
| Identify a rotation | M08.C-G.1.1.1  CC.2.3.8.A.2 | MP4 |
| Rotate a figure in the coordinate plane | M08.C-G.1.1.1  M08.C-G.1.1.3  CC.2.3.8.A.2 | MP4 |
| Use more than one transformation: translation, reflections, rotation | M08.C-G.1.1.2  CC.2.3.8.A.2 | MP4 |
| **Mathematics Placement Exam for Algebra 1 Honors Grade 8** |  | **MP4** |
| **Marking Period 4 Review and Assessment** |  | **MP4** |
| * Review and demonstrate knowledge of Geometry: Surface Area and Volume (7th Grade PSSA) |  | MP4 |
| * Review and demonstrate knowledge of Exponents and Scientific Notation |  | MP4 |
| * Review and demonstrate knowledge of Real Numbers and the Pythagorean Theorem |  | MP4 |
| * Review and demonstrate knowledge of Geometry: Volume |  | MP4 |
| * Review and demonstrate knowledge of Geometry: Transformations |  | MP4 |

**ASSESSMENTS**

**PDE Academic Standards, Assessment Anchors, and Eligible Content:** The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

**Formative Assessments:** The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

**Effective formative assessments for this course include:  
Suggested but not limited to:**

* Pre-assessments of prior knowledge (e.g., Entrance cards or KWL chart)
* Bellringers/Problems of the Day (PODs)
* Discussions
* Exit ticket
* Teacher observations/Questioning
* Graphic organizers (e.g., Venn Diagrams, word mapping, webbing, KWL chart, etc.)
* Outlining
* Cooperative learning
* Written work
* Quizzes
* Oral response
* Self-evaluation
* Homework
* Summarizing
* Note-taking

**Summative Assessments:** The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

**Effective summative assessments for this course include:  
Suggested but not limited to:**

* Performance assessment
* Chapter/unit tests
* Quizzes
* Marking period assessments
* Projects
* Student presentations