

Grade 7 Mathematics Course Comparison

	Mathematics 7	Mathematics 7 Honors	Algebra 1 Honors
Content	<p>This course emphasizes the foundation of algebra. Areas of study include the following six strands:</p> <ul style="list-style-type: none"> • Number and Number Sense • Computation and Estimation • Geometry • Measurement • Probability and Statistics • Patterns, Functions, and Algebra 	<p>This course is based on Mathematics 8 curriculum and includes extensions and enrichment. Emphasis is placed on mathematical reasoning, non-routine problem solving, and algebraic connections among mathematical ideas.</p>	<p>This course provides opportunity for students to use algebra as a tool for representing and solving a variety of practical problems. Tables and graphs will be used to interpret algebraic expressions, equations, and inequalities and to analyze functions.</p>
Course Highlights	<p>Topics include:</p> <ul style="list-style-type: none"> • Proportional reasoning • Integer operations • Relationships between figures • Applications of statistics and probability • Solving two-step linear equations and inequalities • Problem solving through real-life applications 	<p>Topics include:</p> <ul style="list-style-type: none"> • Relationships within the Real Number System • Practical applications of operations with Real Numbers • Problem solving • Statistical analysis of graphs • Linear relationships – solving and graphing equations <p>Some extension topics include:</p> <ul style="list-style-type: none"> • Venn diagrams, density property, parallel lines, laws of exponents, permutations and combinations, and finding the line of best fit for a set of data 	<p>Topics include:</p> <ul style="list-style-type: none"> • Polynomial operations • Laws of exponents • Factor binomials and trinomials • Solve multistep linear and quadratic equations • Solve multistep linear inequalities • Graph linear equations and inequalities • Investigate and analyze linear and quadratic families • Interpret variation in data set in real-world context • Determine the equation of the curve of best fit for a set of data <p>Some extension topics include:</p> <ul style="list-style-type: none"> • Fractional exponents, simplify rational expressions, derive the quadratic formula, solve radical equations, and solve absolute value inequalities
Comments	Pre-Algebra Course	<p>If a student did not take Advanced Mathematics 6 they are essentially skipping a year of mathematics and missing important mathematics concepts such as:</p> <ul style="list-style-type: none"> • Integer operations • Solving algebraic equations 	<p>The following criteria needs to be met for placement in Algebra I Honors:</p> <ul style="list-style-type: none"> • Advanced Mathematics 6 or a year-long accelerated mathematics course • IAAT Score at or above the 91st percentile • A score of pass advanced (500 or above) on the Mathematics 7 SOL test
High School Credit	N/A	N/A	<p>Students earn high school credit</p> <ul style="list-style-type: none"> • additional grade point weight of + 0.5 • grade may be expunged • a student's first high school mathematics course may not be taken over the summer
SOL Test	The student will take the Mathematics 7 SOL test in the Spring	The student will take the Mathematics 8 SOL test in the Spring	<p>The student will take the Algebra 1 SOL test in the Spring</p> <ul style="list-style-type: none"> • A score of pass proficient or passed advanced combined with successful completion of the course will earn a student one verified credit toward graduation
8 th grade Course	<p>Choice of one of the following:</p> <ul style="list-style-type: none"> • Mathematics 8 • Algebra I (open enrollment) • Algebra I Honors (open enrollment) 	<p>Choice of one of the following:</p> <ul style="list-style-type: none"> • Mathematics 8 • Algebra I (open enrollment) • Algebra I Honors (open enrollment) 	Geometry Honors – (Pre-requisite: Algebra 1)

