

The following are concepts that students should have mastered for entering each course:

Prerequisites for 6th Grade Math

- Operations with multi-digit whole numbers
- Comparing decimals and operations with decimals
- Place Value
- Operations with fractions
- Graph points on coordinate plane
- Perimeter and area of basic geometric shapes

Prerequisites for Pre-Algebra 7th/ Pre-Algebra

- Operations with integers
- Order of Operations
- Basic algebraic equations (inverse operations)
- All operations of fractions and decimals
- Knowledge of place value
- Strong estimation and rounding skills

Prerequisites for Algebra I

- Operations with integers
- Solve equations and inequalities having one-step and multi-step with whole numbers, integers, and fractions
- Find square roots
- Operations with fractions
- Solve proportions, use ratios and percentages
- Operations with polynomials
- Area and perimeter of triangles, parallelogram (rectangles & squares) and trapezoids
- Area and circumference of a circle
- Pythagorean Theorem

Prerequisites for Geometry

- Add, subtract, multiply, and divide rational numbers
- Evaluate exponents and square roots
- Solve one-step and multi-step equations with variables on both sides
- Solve rates, ratios, & proportions
- Graph equations from slope-intercept form, find slope, and x- and y-intercepts
- Write equations of a line, including parallel and perpendicular lines

- Perform operations with polynomials
- Factor trinomials
- Simplify radicals, perform operations with radicals, and rationalize radicals.

We would like to stress the importance of operations with fractions and integers because we do not use calculators for the most part.

The following resources are tools to use if your child needs to practice or review any of those concepts listed above:

[Khanacademy.org](https://www.khanacademy.org)

[Collegeboard.org](https://collegeboard.org) (this site is for SAT and PSAT practice)

[ixl.com](https://www.ixl.com) (there is limited time with free version)

patrickjmt.com