

Math Grade 8 Honors: Algebra

Mrs. Rivera

Topics Covered and Reviewed

- Variables & Grouping Symbols- rules and properties for adding, subtracting, multiplying, & dividing real numbers (rules, properties, and computation)
- Monomial Equations- writing equations from phrases, transforming equations with multiple variables or variables on either side of the equation; solving for variables across a given domain
- Polynomials- variables with exponents; adding, subtracting, multiplying, & dividing polynomials; powers of monomials; multiplying polynomials by monomials; transforming formulas; factoring polynomials; differences of two squares; factoring patterns with set formulas or by grouping; and problems without solutions
- Fractions- simplifying, adding, subtracting, multiplying, & dividing fractions; GCF, LCM/LCD; polynomial long division using fractions; ratios & proportions; percent problems; and mixture problems
- Functions- graphing points & lines; slope intercept form & determining the equation of a line; linear & quadratic functions; direct & inverse variations
- Inequalities- solving inequalities; solving combined inequalities; absolute values in open sentences; graphing inequalities
- Rational & Irrational Numbers- properties of rational numbers; decimal forms of rational numbers; square roots of variable equations; the Pythagorean Theorem; radicals; and simple radical equations
- Problem Solving- making a drawing, organizing data, guess & check, finding a pattern, logical reasoning, solving a simpler problem, working backward, account for all possibilities & impossible solutions

If we have time...

- Quadratic Functions- quadratic equations with perfect squares; the quadratic formula; graphing quadratic equations; and direct, inverse, joint, & combined variation

Technology & Resources

- Student Interactive Notebooks
- Textbook: Houghton Mifflin Algebra Structure and Method, Book 1
- Thinking maps
- STEM activities
- Quizlet
- Educreations
- Xtra Math
- IXL
- Projector
- Student iPads
- Classroom student computers

Absences

- If a student is absent, the child is responsible for turning in all missed work within three days. For long illnesses, teachers will be flexible with make-up work. Make-up work not turned in on time will result in a zero. (This is a change from the 2015-2016 school year.)
- For missed work due to absences, the gradebook will reflect a "1" until the student work is made up or the make-up work deadline has passed.