



# Wayland High School

## *Mathematics Department Intermediate Algebra Curriculum Guide*

### Unit 1: Integers

- Prime factorization
- Divisibility Rules
- Adding integers using number lines and algebra tiles
- Subtracting integers using opposites, number lines and algebra tiles
- Multiplying and dividing integers
- Order of Operations
- MCAS review throughout

### Unit 2: Expressions

- Evaluating expressions in one and two variables
- Combining like terms
- Distributive property
- Evaluating exponential expressions
- Multiplying and dividing exponential expressions
- Exponentiating exponential expressions
- MCAS review throughout

### Unit 3: Equations

- Solve one step equations
- Solve two step equations
- Solve multistep equations
- Solve equations with variables on both sides
- Solve word problems (number, money, age, etc) using equations
- MCAS review throughout

### Unit 4: Polynomials

- Add and subtract polynomials
- Multiply monomials by binomials
- Multiply binomials by binomials
- Factor out GCF
- Factor quadratic expressions with  $a=1$

### Unit 5: Graphing Lines

- Plotting points in the Cartesian coordinate system
- Finding the slope given two points
- Finding the slope and y-intercept of a line
- Writing the equation of a line from a graph
- Graphing a line in slope-intercept form
- MCAS review throughout

### Unit 6: Inequalities

- Solving linear inequalities in one variable
- Graphing inequalities on the number line
- Writing an inequality from a number line
- Graphing linear inequalities in the plane
- MCAS review throughout

### Unit 7: Systems of equations

- Solve systems of linear equations by graphing
- Solve systems of linear equations by substitution
- Solve systems of linear equations by elimination
- Solve word problems using systems of equations