

Grade 8** Math Outcomes
taken from Massachusetts Curriculum Frameworks for Mathematics
February 2001

Number Sense:

- 8.N.6 Demonstrates an understanding of absolute value
- 8.N.7 Applies the rules of powers and roots to the solution of problems
- 8.N.8 Demonstrates an understanding of the properties of arithmetic and rational numbers
- AI.N.1 Identifies and uses the properties of operations on real numbers
- AI.N.2 Simplifies expressions including integer exponents and absolute value

Patterns, Relations, and Algebra:

- AI.P.1 Defines, extends, analyzes, generalizes, and creates a wide variety of patterns including iterative, recursive, linear, quadratic, and exponential
- AI.P.3 Demonstrates an understanding of relations and functions. Identifies the domain, range, dependent, and independent variables of the function.
- AI.P.4 Translates between different representations of functions; graphs, tables, equations, STELLA models
- AI.P.5 Demonstrates an understanding of the relationship between various representations of a line; determines slope; writes and graphs linear equations
- AI.P.6 Determines equations of lines parallel or perpendicular to a given line
- AI.P.7* Adds, subtracts, and multiplies polynomials.
- AI.P.8* Manipulates polynomial expressions by rearranging terms, combining like terms, and factoring; simplifies simple rational expressions; applies properties of integer exponents

AI.P.9* Finds the solutions to quadratic equations using graphs, factoring, or the quadratic formula

AI.P.11* Solves everyday problems that can be modeled using linear, quadratic or exponential functions.

AI.P.12* Solves everyday problem that can be modeled using systems of linear equations

AI.D.2 Approximates a line of best fit.

Measurement:

8.M.5 Uses models, graphs, and equations to solve simple problems involving rates; uses STELLA to model a variety of rate problems

*The standard may not be met entirely. The description is what the student is able to do. The standard may involve more.

**This reflects what students taking algebra as eighth graders are able to do by the end of the year.