Mathematics Essential Learning Outcomes
Hope -Appleton-Lincolnville Schools

Algebra 1	
Number and Quantity:	
THE REAL NUMBER SYSTEM	1. Translates between radical and exponential notation
QUANTITIES	1. Converts units using dimensional analysis
Algebra:	
SEEING STRUCTURE in EXPRESSIONS	1. Identifies terms and coefficients in an expression 2. Expresses equations in point-slope form and standard form
ARITHMETIC with POLYNOMIALS and RATIONAL EXPRESSIONS	1. Applies the laws of exponents 2. Multiplies binomials 3. Factors the difference of two squares, perfect square trinomials and other quadratics 4. Factors a quadratic expression
CREATING EQUATIONS	1. Solves literal equations for indicated variable
REASONING with EQUATIONS and INEQUALITIES	1. Identifies the properties used to solve equations 2. Writes and graphs the equation of a line in slope-intercept form 3. Solves quadratic equations by factoring or completing the square 4. Solves quadratic equations using the quadratic formula 5. Uses the addition, subtraction and substitution methods to solve a system of linear equations in two variables 6. Solves a system of linear inequalities graphically
Functions:	
INTERPRETING FUNCTIONS	1. Finds the domain and range of a relation 2. Identifies the number of solutions to a linear function 3. Identifies and classifies the number of solutions to a quadratic function 4. Identifies vertex, line of symmetry and maximum or minimum of a quadratic function
BUILDING FUNCTIONS	1. Writes a linear function for pairs of data
LINEAR, QUADRATIC and EXPONENTIAL MODELS	1. Identifies linear and non-linear functions 2. Uses the equation for exponential growth or decay to solve real-world problems
Statistics and Probability:	
INTERPRETING CATEGORICAL and QUANTITATIVE DATA	1. Translates from one data representation to another 2. Finds and interprets the line of best fit for a set of data 3. Identifies correlations in data

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