OCS Math 1 Priority Standards

ALGEBRA	

NC.M1.A-SSE.1	Interpret expressions that represent a quantity in terms of its context.
	    a. Identify and interpret parts of a linear, exponential, or quadratic expression, including terms, factors, coefficients, and exponents.
	    b. Interpret a linear, exponential, or quadratic expression made of multiple parts as a combination of entities to give meaning to an expression.

NC.M1.A-CED.1	Create equations and inequalities in one variable that represent linear, exponential, and quadratic relationships and use them to solve problems.
NC.M1.A-CED.2	Create and graph equations in two variables to represent linear, exponential, and quadratic relationships between quantities.
NC.M1.A-REI.5	Explain why replacing one equation in a system of linear equations by the sum of that equation and a multiple of the other produces a system with the same solutions.
NC.M1.A-REI.10	Understand that the graph of a two variable equation represents the set of all solutions to the equation.
FUNCTIONS	
NC.M1.F-IF.4	Interpret key features of graphs, tables, and verbal descriptions in context to describe functions that arise in applications relating two quantities, including: intercepts; intervals where the function is increasing, decreasing, positive, or negative; and maximums and minimums.
NC.M1.F-IF.7	Analyze linear, exponential, and quadratic functions by generating different representations, by hand in simple cases and using technology for more complicated cases, to show key features, including: domain and range; rate of change; intercepts; intervals where the function is increasing, decreasing, positive, or negative; maximums and minimums; and end behavior.
NC.M1.F-IF.9	Compare key features of two functions (linear, quadratic, or exponential) each with a different representation (symbolically, graphically, numerically in tables, or by verbal descriptions).
GEOMETRY	

NC.M1.G-GPE.4	Use coordinates to solve geometric problems involving polygons algebraically
	    • Use coordinates to compute perimeters of polygons and areas of triangles and rectangles.
	    • Use coordinates to verify algebraically that a given set of points produces a particular type of triangle or quadrilateral.

NC.M1.G-GPE.5	Use coordinates to prove the slope criteria for parallel and perpendicular lines and use them to solve problems.
	    • Determine if two lines are parallel, perpendicular, or neither.
	    • Find the equation of a line parallel or perpendicular to a given line that passes through a given point.

NC.M1.G-GPE.6	Use coordinates to find the midpoint or endpoint of a line segment.
STATISTICS & PROBABILTY	
NC.M1.S-ID.3	Examine the effects of extreme data points (outliers) on shape, center, and/or spread.

NC.M1.S-ID.6	Represent data on two quantitative variables on a scatter plot and describe how the variables are related.
	    a. Fit a least squares regression line to linear data using technology. Use the fitted function to solve problems.
	    b. Assess the fit of a linear function by analyzing residuals.
	    c. Fit a function to exponential data using technology. Use the fitted function to solve problems.