



July 2016

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THE STATE EDUCATION DEPARTMENT

How are the PLDs used in Assessment?

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
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Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Arithmetic with Polynomials & Rational Expressions (A-APR)	Apply the remainder theorem to determine the remainder on division by $(bx + a)$ and if $(bx + a)$ is a factor of $P(x)$.	Apply the remainder theorem to determine the remainder on division by $(x + a)$ and if $(x + a)$ is a factor of $P(x)$.	Apply the remainder theorem to determine if $(x + a)$ is a factor of $P(x)$.	Determine the remainder of $P(x)$ by evaluating $P(a)$.	
	Identify zeros of quadratic, cubic, and quartic polynomials and polynomials for which factors are not provided, and use the factors to graph the function in context.	Identify zeros of quadratic, cubic, and quartic polynomials and polynomials for which factors are not provided, and use the factors to graph the function.	Identify zeros of quadratic, cubic, and quartic polynomials and use the factors to graph the function.	Identify zeros of quadratic, cubic, and quartic polynomials.	Identify the zeros of a polynomial function given in factored form.
	Derive a polynomial identity and use the identity to describe numerical relationships in context.	Prove that a polynomial equation is an identity and use the identity to describe numerical relationships.	Prove that a polynomial equation is an identity.	Provide justification for a step of a given identity proof.	Provide evidence that an equation is an identity by substituting numerical values for the variables.

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Reasoning with Equations & Inequalities (A-REI)	Predict, without solving , when a radical or rational equation will have no real solutions and explain reasoning using mathematical evidence.	Solve radical and rational equations in one variable and identify extraneous solutions .	Solve radical and rational equations in one variable.	Solve a radical or a rational equation in one variable.	Verify that a number is a solution to a radical or rational equation.

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Interpreting					

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Linear, Quadratic, & Exponential Models (F-LE)	Construct and apply a linear				

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**Trigonometric
Functions**

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Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Interpreting Categorical & Quantitative Data (S-ID)	<p>Generate and explain why scenarios may fit a normal distribution.</p> <p>Generalize how the normal distribution relates to the mean and standard deviation.</p>	<p>Interpret the mean and standard deviation of the normal distribution in the context of appropriate real-world scenarios.</p> <p>Use the normal distribution to estimate population percentages in real-world scenarios.</p>	<p>Sketch a normal distribution model given the mean and standard deviation of a set of data.</p>		

Domain	NYS Level 5	NYS Level 4	NYS Level 3	NYS Level 2	NYS Level 1
Conditional Probability & the Rules of Probability (S-CP)	Construct and interpret a two-way table given a verbal description.	Calculate conditional probabilities given a two-way table.	Calculate probabilities given a two-way table.	Calculate relative frequencies given a two-way table.	
	Create, explain and interpret two independent events using concepts of conditional probability in verbal descriptions or two-way tables.	Explain why two events are independent using concepts of conditional probability in verbal descriptions or two-way tables.	Determine if two events are independent using concepts of conditional probability in verbal descriptions or two-way tables.		
		Calculate the conditional probability of A given B as the outcomes that also belong to A and interpret the answer in terms of the model.	Calculate the conditional probability of A given B given P(A and B) and P(B).	Identify P(A), P(A and B), and P(B).	
	Choose and apply appropriate subsets of a sample space in order to compute probabilities of events and interpret the results in the given context.	Apply subsets of a sample space in order to compute probabilities of events and interpret the results in the given context.	Apply subsets of a sample space in order to compute probabilities of events in the given context.	Identify subsets of a sample space.	List the sample space of a probability experiment.