Submit comments on the draft NYS Algebra II Mathematics Learning Standards

NYS Algebra II Mathematics Learning Standards					
Number and Quantity The Real Number System (RN)					
		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster	A. Extend the properties of exponents to rational exponents.	N-RNA.1	Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1/3}$ to be the cube root of 5 because we want $(5^{1/3})^3 = 5^{(1/3)3}$ to hold, so $5^{(1/3)3}$ must equal 5.	Explore how the meaning of rational exponents follows from extending the properties of integer exponents.	
		N-RNA.2	Rewrite expressions involving radicals and rationa exponents using the pr96 -(ng 162.)-612di 3E7.4 Tm [(e)9(x)4.3M8(p)9(ne)9(nt)2.68s(o)48 (ng)6.1(.)462.84 344..925 1 scn 85.8 183.72 7Tm		

NYS Algebra II Mathematics Learning Standards

Algebra

Seeing Structure in Expressions (SSE)

Standard Code

		A-SSE.B.4	4. Derive the formula for the sum of a finite geometric series (when the common ratio is no 1), and use the formula to solve problems. For example, calculate mortgage payments. NYSE Includesusing summation notation.	MOVE STANDARD TO FUNCTIONS CLUSTER F-BF.B.7	Remove from Expressions Cluster and move to Building Functions cluster (new label: F-BF.B.7)

NYS Algebra II Mathematics Learning Standards					
Algebra Reasoning with Equations and Inequalities (A-REI)					
		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster	B. Solve equations and inequalities in one variable.	A-REI.B.4	4. Solve quadratic equations in one variable. (Shared with A1)	NO CHANGE	
		A-REI.B.4b			

NYS Algebra II Mathematics Learning Standards					
Algebra Reasoning with Equations and Inequalities (A-REI)					
		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster D. Represent and solve equations and inequalities graphically.		A-REI.D.11	11. Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation f(x)=g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions. (Shared with A1). PARCC: i) Tasks involve any of the function types mentioned in the standard. û	11. Given the equations y=f(x) and y=g(x): i) recognize that each x-coordinate of the intersection(s) is the solution to the equation f(x)=g(x); and ii) find the solutions approximately using technology to graph the functions or make tables of values; and iii) interpret the solution in context. û Note for Algebra II: Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	

NYS Algebra I Mathematics Learning Standards				
Functions Interpreting Functions (F-IF)				
		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster	C. Analyze functions using different representations.	F-IF.C.8	8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.	8. Write a function in different but equivalent forms to reveal and explain different properties of the function.	
		F-IF.C.8b	8b. Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as $y = (1.02)^t$, $y = (0.97)^t$, $y = (1.01)^{12t}$, $y = (1.2)^{t/10}$, and classify them as representing exponential growth or decay. NYSED: Includes $A=Pe^{rt}$ and $A=P(1+(r/n))^{nt}$	8b. Use the properties of exponents to interpret exponential functions, and classify them as representing exponential growth or decay. Include real world problems involving compound and continuous interest.	
		F-IF.C.9	9. Compare properties of two functions each represented in a different way (alge		

		F-BF.B.6	NEW STANDARD	6a. Convert between the expanded form of a series and summation notation for the series and evaluate. 6b. Write arithmetic and geometric series in summation notation.	
		F-BF.B.7	USED TO BE SSE.B.4	7. Explore the derivation of the formulas for arithmetic and finite geometric series. Use the series to solve problems. For example, calculate mortgage payments. û	

NYS Algebra I Mathematics Learning Standards	
Functions Linear, Quadratic and Exponential Models - I (E) ûû	
Standard Code	

NYS Algebra II Mathematics Learning Standards				
Functions Trigonometric Functions (F-TF)				
	Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster A. Extend the domain of trigonometric functions using the unit circle.	F-TF.A.1	1. Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.	NO CHANGE	

NYS Algebra II Mathematics Learning Standards					
Geometry Expressing Geometric Properties with Equations (GPE)					
		Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster	A. Translate between the geometric description and the equation for a conic section.	G-GPE.A.2	2. Derive the equation of a parabola given a focus and directrix.	REMOVE STANDARD PLUS STANDARDS	The committee feels that this standard is not appropriate for this course, ties better with the study of conics in higher level math courses.

NYS Algebra I Mathematics Learning Standards

Statistics and Probability û

Interpreting categorical and quantitative data (S-ID) û

Standard Code	Current Standard

NYS Algebra II Mathematics Learning Standards				
Statistics and Probability ûû Making Inferences and Justifying Conclusions (S-IC) ûû				
	Standard Code	Current Standard	Revised Standard Recommendation for 2018-19	Additional Information/Notes
Cluster A. Understand and evaluate random processes underlying statistical experiments.	S-IC.A.1	1. Understand statistics as a process for maki		

		S-CP.A.5	5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. F example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.	REMOVE STANDARD COMBINED WITH OTHER STANDARDS IN CLUSTER FOR CLARI	