Alg 1 R Scope and Sequence

Topic / Lesson KEY			
Previous Grade Level (unfinished learning)	Current Grade Level (new content)	Major Cluster Standards Supporting Standards Additional Standards	
Unit		**Coding of Standards**	Shared Alg II
Sept 10-Oct 8			
Review Mod 5		**NY-8.F.1**	
Unit 1 Functions, Graphs, and Features		**AI.FIF.1**	
		AI.F.IF.2	
		AI.F.IF.4	X
		AI.F.IF.5	
		AI.F.IF.6	X
		A1.F.IF.7a	
Oct 13- Nov 24			
Review Mod 5/6 8th Grade		**NY-8.F.3 ***	
		NY-8.F.4 *	
Interpreting and Writing Linear Functions		**AI.CED.2**	
		AI.REI.10	
		AI.F.IF.2	
		AI.F.IF.4	X
		AI.F.IF.5	
		AI.F.IF.9	X
		AI.F.BF.1	X
		AI.F.LE.1b	
		AI.F.LE.2	X
		AI.F.LE.5	X
		AI.S.ID.6a	X
		AI.S.ID.7	

	AI.S.ID.8	
	AI.S.ID.9	
Nov 30-Dec 23		
Linear Equations and Inequalities	AI.REI.1a	X
	AI.REI.3	
	AI.SSE.1	
	AI.CED.1	X
	AI.REI.11	
	AI.CED.4	
Jan 4-Jan 25		
Sequences and Exponential Functions	AI.SSE.3	X
	AI.CED.1	X
	AI.F.BF.1a	X
	AI.F.LE.1	
	AI.F.LE.2	X
	AI.F.LE.3	X
	AI.F.LE.5	X
Feb 1- April 16		
Mod 7- Introduction to Irrational Numbers Using Geometry	NY-8.NS.1	
	NY-8.NS.2	
	NY.8.EE.2	
	N.RN.B.3	

Quadratic Functions	AI.F.IF.4	X
	AI.F.IF.8	X
	AI.F.IF9	X
	AI.SSE.3	X
	AI.APR.3	X
	AI.CED.1	X
	AI.REI.4aand	X(b)
	AI.SSE.2	X
	AI.APR.1	
	AI.REI.10	
	A1.F.IF.7a	
	AI.F.BF.3a	
		X
	AI.REI.11	
April 19 -May 21		
Writing and Solving Systems of Equations and Inequalities	AI.CED.3	
	AI.REI.5	
	AI.REI.6a	X
	AI.REI.10	
	AI.REI.11	
	AI.REI.12	
May 24-28	Skip if time does allo	
Descriptive Statistics	AI.SID.1	
	AI.SID.2	
	AI.SID.3	

AI.SID.5

	COVID -19 Algebra 1 Reg
	Topic / Lesson KEY
	Previous Grade Level Sample: A/L1
Common Core State Standards (CCSS)	**Learning targets that ma**
Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.	
Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range	*I can determine if a relati *I can identify the domain
Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.	situations. *I can use function notation *I can represent a situation ir
Determine the domain of a function from its graph and, where applicable, identify the appropriate domain for a function in context.	*I can identify the appropri
Calculate and interpret the average rate of change of a function over a specified interval.	*I can calculate the average r
Graph linear, quadratic, and exponential functions and show key features	*I can graph functions u functions.
Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line. Recognize examples of functions that are linear and non-linear.	I can determine if a function from a table, equation, graph
Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.	two points, or verbal descripti • I can determine the rate of c table and graph. • I can explain the meaning o function in terms of the situa
Create equations and linear inequalities in two variables to represent a real-world context. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.	I can write linear equations a relationships between two va *I can find the rate of chan graphs. "*I can use function notation situations. including average rate of cha • I can sketch a graph showir particular scenario or context
Determine the domain of a function from its graph and, where applicable, identify the appropriate domain for a function in context.	*I can identify the appropri
Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	I can compare linear functior represented differently (graph
Write a function that describes a relationship between two quantities.	*I can represent and interp
Recognize situations in which one quantity changes at a constant rate per unit interval relative to another, and therefore can be modeled linearly.	I can analyze a given context can be modeled with a linear
Construct a linear or exponential function symbolically given:i) a graph;ii) a description of the relationship;iii) two input-output pairs (include reading these from a table).	I can write the equation for a description or a set of ordere
Interpret the parameters in a linear or exponential function in terms of a context. Fit a function to real-world data; use functions fitted to data to solve problems in the context of the data.	I can interpret the meaning o
Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.	I can interpret the meaning o data.

Calculate (using technology) and interpret the correlation coefficient of a linear fit.	I can compute (using technol linear fit.
Distinguish between correlation and causation.	I can describe the difference
~~Explain each step when solving a linear or quadratic equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.~~	
Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.	I can solve multi-step linear coefficients represented by le I can solve multi-step linear variable.
Interpret expressions that represent a quantity in terms of its context.	
Create equations and inequalities in one variable to represent a real-world context.	I can write, and interpret line
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);ii) find the solutions approximately using technology to graph the functions or make tables of values; andiii) interpret the	
Rewrite formulas to highlight a quantity of interest, using the same reasoning as in solving equations.	I can solve formulas for a pa
Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	
Create equations and inequalities in one variable to represent a real-world context.	I can write, and interpret exp
Write a function that describes a relationship between two quantities Distinguish between situations that can be modeled with linear functions and with exponential functionsa. a)Justify that a function is linear because it grows by equal differences over equal intervals, and that a function is exponential because it grows by equal factors over equal intervals. b) Recognize situations in which one quantity changes at a constant rate per unit interval relative to another, and therefore can be modeled linearly. c) Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another, and therefore can be modeled exponentially. Construct a linear or exponential function symbolically given. i) a graph; ii) a description of the relationship; iii) two input-output pairs (include reading these from a table).	I can analyze a given context I can write the equation for li verbal description or a set of
Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.	I can compare and draw conc
Interpret the parameters in a linear or exponential function in terms of a context.	I can interpret the parameters
Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion eventually repeats. Know that other numbers that are not rational are called irrational.	I can identify whether a num
Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line, and estimate the value of expressions. *p and x3 = p, where p is a positive rational number. Know square roots of perfect squares up to 225 and cube roots of perfect cubes up to 125. Know that the square root of a non-perfect square is irrational.*	I can evaluate square roots o
Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational	I can explain which operatio

For a function that models a relationship between two quantities:i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.	I can interpret key elements
Write a function in different but equivalent forms to reveal and explain different properties of the function.	I can analyze a quadratic by
Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	I can compare properties of t
Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	
Identify zeros of polynomial functions when suitable factorizations are available.	I can factor a quadratic expre
Create equations and inequalities in one variable to represent a real-world context.	I can write and interpret quad
Solve quadratic equations in one variable.	I can find real solutions to qu
Recognize and use the structure of an expression to identify ways to rewrite it.	
Add, subtract, and multiply polynomials and recognize that the result of the operation is also a polynomial. This forms a system analogous to the integers.	
Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.	
Graph linear, quadratic, and exponential functions and show key features	I can graph quadratic functio intercepts, maxima, and mini
Using f(x) + k, k f(x), and f(x + k):i) identify the effect on the graph when replacing f(x) by f(x) + k, k f(x), and f(x + k) for specific values of k (both positive and negative);ii) find the value of k given the graphs;iii) write a new function using the value of k; and iv) use technology to experiment with cases and explore the effects on the graph	
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);ii) find the solutions approximately using technology to graph the functions or make tables of values; andiii) interpret the solution in context. ★	
Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context.	I can represent constraints w I can determine whether solu constraints provided in a mo
Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.	
Solve systems of linear equations in two variables both algebraically and graphically	I can write, solve, interpret, a equations using multiple met
Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.	
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);ii) find the solutions approximately using technology to graph the functions or make tables of values; andiii) interpret the	I can describe and interpret t system of equations graphica
Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	I can describe and interpret t graphically.
Represent data with plots on the real number line (dot plots, histograms, and box plots).	I can represent data with dot
Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (inter-quartile range, sample standard deviation) of two or more different data sets.	I can compare the center (me standard deviation) of two or distribution.
Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	I can interpret differences in

Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

ents

Current Grade Level Sample: A/L1	OMIT Lesson Sample: ~~F/L~~17	Consider Consolidating Lessons

ay be addressed during these unit	Critical Content And Skills frequently/ heav regents CCAS
on is a function. and range of functions. to evaluate points in tables, graphs and contextual	#1 CCAS Determine whether a relation is a function set of ordered pairs.
to evaluate a function rule.	# 2 CCAS Use function notation, evaluate functions domains.
n context with a graph.	# 3CCAS Find the range for a specified domain given graph.
iate domain for a situation in context.	# 4 CCAS Find the domain and range given a functio life context
rate of change for a situation. using the graphing calculator to graph	# 5 CCAS Calculate and interpret the average rate of (presented symbolically or as a table) over a specifie Graph linear functions that are in slope intercept form
is linear or non-linear , or verbal model.	
model a linear relationship from a table of values, tion. change (slope) and initial value (y-intercept) from a	
of the rate of change and initial value of a linear tion it models.	
and inequalities that represent ariables or quantities.	
nge in linear relationships with tables, points and	# 6 CCAS Determine whether a point is in the solutio function by using the graph, table or equation.
to evaluate points in tables, graphs and contextual	
nge, y-intercept, xintercepts. g key features given a t.	# 7 CCAS Identify the slope and y-intercept and dete context. Graph linear functions that are in slope inter = form.
iate domain for a situation in context.	
s that are each hs, tables, equations,	# 8 CCAS Determine whether a point is in the solutio function by using the graph, table or equation.
pret linear relationships with tables, graphs and	# 9 CCAS Write linear function rules for a graph, a d
to determine whether it function.	# 10 CCAS Identify the slope and y-intercept and de in context.
linear function when given a graph, a verbal d pairs.	
f slope and y-intercept in terms of their contexts.	#10 CCAS Identify the slope and y-intercept and dete context.
	# 11 CCAS Use the STAT feature on the graphing ca regression. (linear or exponential) Rounding when ne
f the slope and the y-intercept in the context of the	#12 CCAS Identify the slope and y-intercept and dete context.

logy) and interpret the correlation coefficient of a	# 13 CCAS Use the STAT feature on the graphing ca value and explain what it means in context.
between correlation andcausation .	
	# 14 CCAS Solving multi-step (linear) equations usin real numbers, using technology
equations in one variable including equations with etters.	
inequalities in one	Supporting skills - Use the properties of real numbers algebraically and use the table of the graphing calcula
ear equations and inequalities.	
rticular variable ofinterest.	Suporting skills - Solve for y. or any other identified
onential equations when given a real world context.	
	supporting - Distinguish between situations that can b linear functions and with exponential functions.
	# 15 a CCAS Identify the growth/decay factor and y-i determine the meaning in context.
to determine whether itcan be modeled with a linear or	
inear and exponential functions when given a graph, a ordered pairs.	# 15b CCAS Determine the factor and y-intercept and form.
	# 16 CCAS Use the table to determine if two exponer equivalent
clusions about graphsand tables of linear and exponentia	
s in linear andexponential function models, in terms of t	# 15 a CCAS Identify the growth/decay factor and y-i
ber is rational orirrational by whether its decimal form i	
f small perfect squaresand cube roots of small perfect cu	
ns are closed in the set ofreal numbers and its subsets of	# 20 CCAS Explain why the sum or product of two ra rational; that the sum of a rational number and an irra

	# 16 CCAS Use the graph, table or maximum/mininu graphing calculator to find the vertex and understand
of the graphs and tables of quadraticfunctions,including	is the y-value of the vertex.
changing the format of a function to reveal particularattri	Compare factored form with that of the equation in st
wo functionsrepresented differently (graphs, tables, equ	
ession in order to revealits zeros.	# 17 CCAS Identify zeros and compare to its factors
dratic equations mathematically and in context,	
uadratic equations in onevariable using multiple method	# 18 A CCAS Solve quadratics graphically
	# 18 B CCAS Factor quadratics and solve quadratic e
	Factoring
	FInd the sum, difference and product of polynomials check answer by using the y = and tables to see if the
ns that are expressed symbolically and show ima.	f(x), f(kx), and f(x + k) for specific values of k (both negative) with and without the graphing calculator.
ith systems of equations or inequalities. tions are viable or nonviable options, given the deling context.	Supporting: Model a written situation with a system o equations/inequalities.
and justify my solution method for systems of linear hods	# 19 CCAS Solve systems of linear equations approx graphs), focusing on pairs of linear equations in two v
he solution set of a lly and relate that to the algebraic solution.	
he solutions to a system of linear inequalities	
plots, histograms, andbox plots.	
an and median) and spread (interquartile range and more data sets based on the shape of the data	
shape, center, andspread based on the context of the data	

ily tested on the	Days	Curricular Materials and Daily Lessons							
given a table, graph,	20 + 1 for assessment	Mod 3 Topic B Engage NY		Unit 1 District Resources			Unit 3 EMath (w/videos)		
for inputs in their		L9	L10	L1	L2	L3	L1	L2	L3
a function rule or		L12	L13	L4	L4	L6	L4	L5	L6
n rule, graph or real				L7	L8	L9	L7		
change of a function l interval.									
or not in y = form.									
	28 + 1 for assessment	Engage NY Mod		Unit 2 District Resources					Unit 4 Emath(w/vide
		Mod 1 L20		8th/L1	8th/L2	8thL3	U2/L1	U2/L2	L1 L2
		Mod 3 L 11		U2/L3	U2/L4	U2/L5	U2/L6	U2/L7	L4 L5
n set to a linear		Module 2		U2/L8	U2/L9	U2/L10	U2/L11	U2/L12	L7 L8
		L13	L14						Unit 10 Emath
ermine the meaning in cept form or not in y		L19	L20						L6 L7
n set to a linear									
escription of a termine the meaning									
ermine the meaning in									
lculator to write the cessary,									
ermine the meaning in									

lculator to find the r-										
g the properties of		Engage NY		Unit 3 District Resources					Unit 2 EMath(	
s to solve ator to check work.				U3/L1	U3/L2	U3/L3	U3/L4	U3/L5	L1	L2
	17 + 1			U3/L6	U3/L7	U3/L8	U3/L9	U3/L10	L4	L5
				U3/L11	U3/L12	U3/L13	U3/L14	U3/L15	L8	L9
variable.										
	14 +1	Engage NY Mod		Unit 4 District Resources					Unit 6 Emath(	
				Alg 1 E-MRT week 12/13					L3	L4
be modeled with									L6	L7
intercept and										
l put in y = a(b)^x										
ntial expressions are										
intercept and				Alg 1 E-MRT week 12/13						
	44 + 1	Engage NY Mod		Unit 5 District Resources					Unit 7 Emath(	
				8th/ Explore Math week 1					L1	L2
				L1	L2	L3	L4	L5	L4	L5
ational numbers is tional number is				L6	L7	L8			Unit 8 Emath(	

m feature of the that the min or max
andard form
equations by factoring
in standard form and y are equivalent.
positive and
f linear
imately (e.g., with variables.
5

8 E-MRT Week 12

L1	L2
L4	L5
L7	L8

Engage NY Mod

Unit 6 District Resources

L1	L2	L3	L4	L5	L1	L2
L6	L7	L8	L9	L10	L4	L5
L11					L7	L8

Unit 5 Emath(

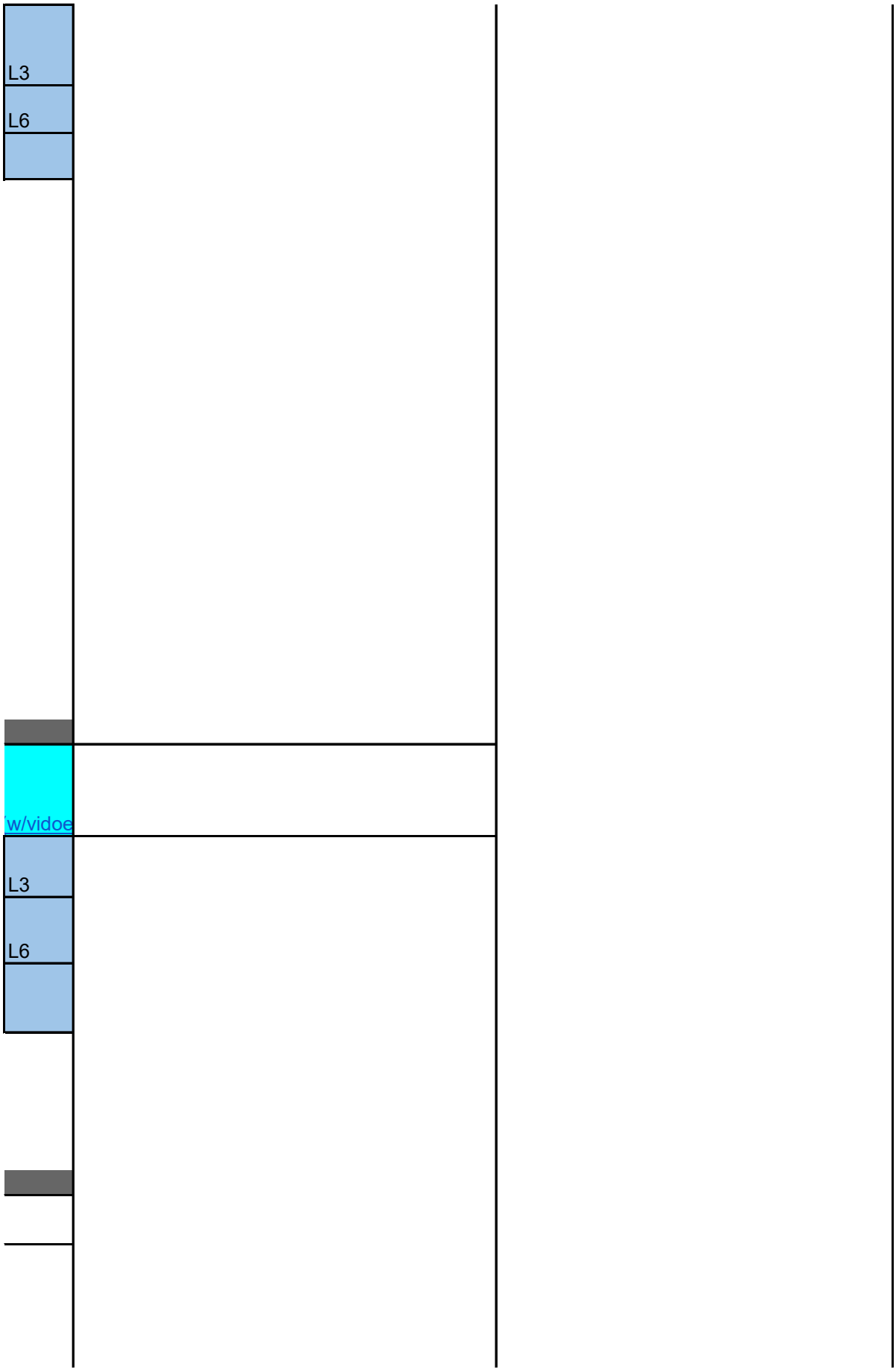
Unit 6 District Resources

Unit 10 Emath(w/vidoe

L1	L2	L3
L4	L5	

os)		
L3	I believe that these lessons are from 8th grade	I don't think we need emath L1 and L2- at least not full lessons.
L6	I think we should get rid of the Unit in front of the lessons since they are based on the old scope and sequence...we can change	
n(w/vido		

w/ vide L3 L7		I think emath L13 should be included- modeling with inequalities
w/video L5 L8	Are sequences necessary in a shrotened time fr my emath lesson choices don't include this.	I don't think sequences are necessary.
w/vidoe L3 L6 w/vidoe	I think this might be too much for 1 unit	Maybe remove emath Unit 7 L6 and Unit 8 L7


L3
L6
w/vidoe
L3
L6

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Geo R			2020-2021 Geometry Regents scope and sequence
Green: Major Cluster Standards, Blue: Supporting Standards, Yellow: Additional Standards			
Timeline/Units Suggested by Scope and Sequence	**Standard Codes**	**Standards for Algebra 1 broken down by the units**	**Learning targets that may be addressed during these units**
Sep 14 - 18			
~~Constructions~~	~~G-CO.1~~	~~G.CO.A.1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the~~	
	~~G-CO.12~~	~~*of tools and methods (compass and straightedge, string,*~~	
	~~G-CO.13~~	~~G.CO. D. 13 Construct an equilateral triangle, a square, and a~~	
Review solving Equations Algebra 1	**AI.REI.3**	Solve linear equations and ~~inequalities~~ in one variable, ~~including equations with coefficients represented by letters.~~	I can solve multiple step equations graphically and algebraically. (Focus on variables on both sides and combining like terms)
Sep 21 - 25			
Unknown Angle	G-CO.9	G.CO.C.9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; ~~points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints. Teach with contruction and proposerties of~~	I can use the angle relationships in vertical, supplementary and complementary angles to find angle measurements. I can identify angle relationships that exist between two parallel lines cut by a transversal and generate conjectures about those relationships. I can use the angle relationships between angles formed by parallel lines cut by a transversal to find the missing angle.
	G-CO.10	G.CO.C.10 Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining ~~midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point~~.	I can find the unknown angles and cite geometric justifications regarding angles in a triangle I can identify different types of triangles based on angles and sides
Sep 28 - Oct 16			
Rigid Motions	G-CO.2	G.CO.A.2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus	I can represent reflections, translation and rotation on a plane and off the plane using sketching and construction tools.
	G-CO.3	~~polygon, describe the rotations and reflections that carry it onto itself.~~	
	G-CO.4	G.CO.A.4 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.	I can describe reflection rotation traslations as a rigid motion.
	G-CO.5	G.CO.A.5 Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.	plane without changing its size. I can describe the sequence of transformations that would map one shape onto the other.
	G-CO.6	G.CO.B.6 Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are	I can use the properties of rigid mortion to solve problems

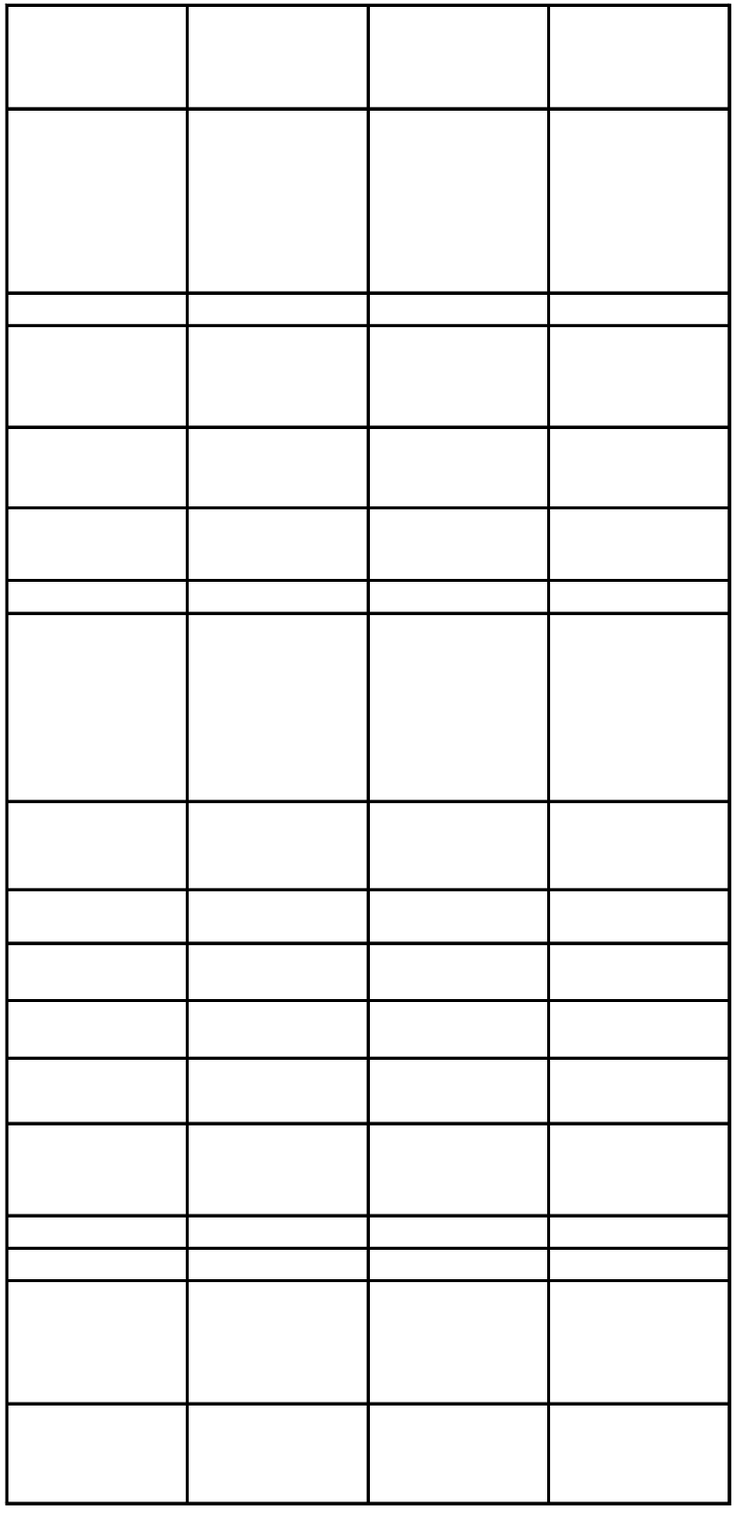
	Grade level lessons			Previous grade level			
	L3	Teach		L1	Teach	~~L1~~	Omit
Content and skills heavily weighted on the regents CCAS	Days	Curricular Materials and Daily lessons					
		Engage NY Module					
~~inscribed square triangles and hexagon Medians~~		~~L1~~	~~L2~~	~~L3~~	~~L4~~		
		~~L5~~					
	Paco/Tammy Proposin	M1/TC/L12	M1/TC/L13				
1. Use angle relationships such as (interior angle sum in triangles and quadrilaterals, supplementary angles, vertical angles Find the missing angles in triangles and quadrilaterals 2.1 By estimation comparing to a corner 90 degree angles (half 45 degree angle) obtuse acute angles 2.2 Guess and Check (in the multiple choice) 2.3 Angles	Paco/Tammy Proposing 5 days	Engage NY Module 1 Topic B				Notes from C. Melick:	Note from Burgos
		Start by reviewing 8th grade work on angles		M1/L6	M1/L7		Omit problems that require drawing an auxiliary line.
		M1/L8	M1/L9/10				
	Paco Proposing 10 days plus 2 assessment	Engage NY Module 1 Topic C				Notes from C. Melick:	Note from Burgos
		L12	L13	L14	L15		
		L16	~~L17~~	~~L18~~	~~L19~~	For these lessons I would skip over the parts with constructions since that topic was not covered. There may need to be a supplementary lesson to support finding the line of reflection.	
2. Perform and describe the Rigid Motion on and off the coordinate plane.		L20					
						L17-L19 are lessons relating constructions to rigid motions. I agree with Melick I would omit and sub with district created resources	I agree

Consolidate											
L1	L2										
EMath Instruction (with videos)			Unit 2 Lessons								
U2/L3	U2/L4	U2/L7									
EMath Instruction (with videos)			Unit 1 Le	Unit 3 Lc	Notes from C. Melick:						
U1/L1	U1/L2	U1/L3	U1/L4		EMath Instruction approaches Geometry in a very different way/order than Engage NY.						
U3/L6	U3/L7				that even mentions parallel lines cut by a transversal. There is a						
EMath Instruction (with videos)			Unit 2 Lessons		Notes from C. Melick:						
U2/L1	U2/L2	U2/L3	U2/L3	U2/L4							
U2/L5	U2/L6	U2/L7	U2/L8	~~U2/L9~~	describing symmetry of a variety of polygons. It does have an example of symmetry of an						
Unit 5 lessons selected below											
U5/L9	U5/L10	U5/L11			Rigid motions on the coordinate plane shows up in Unit 5.						

	G-CO.7	motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.	I can use the rigid motion properties to reason about congruent shapes and parts.
	~~G-CO.12~~	~~*G.CO.D.12 Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflectivangle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.*~~	
Oct 19 - Nov 6			
Congruent Triangles	G-CO.7	G.CO.B.7 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles	
	G-CO.8	G.CO.B.8 Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.	
Nov 9 - 24			
Properties of Parallelograms Midsegments, and Medians	G-CO.9	G.CO.C.9 Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.	complementary angles to find angle measurements. I can identify angle relationships that exist between two parallel lines cut by a transversal and generate conjectures about those relationships. I can use the angle relationships between angles formed by parallel lines cut by a transversal to find the missing angle.
	G-CO.10	G.CO.C.10 Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining	I can find the unknown angles and cite geometric justifications regarding angles in a triangle
	G-CO.11	*G.CO.C.11 Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals*	
	G-CO.13	G.CO. D. 13 Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	
	G-CO.12	*of tools and methods (compass and straightedge, string, reflectivangle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a*	
Nov 30 - Jan 25			
	G-SRT.1	given by a center and a scale factor: G.SRT.A.1.A A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.	
	G-SRT.4	*line parallel to one side of a triangle divides the otherG.SRT.B.4 Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other*	

3. Use rigid motion properties to reason about congruent shapes and parts.		To address rigid motions see district created materials Explore Math Week 1 amd 2		
	15 days	Engage NY Module1 Topic D	Notes from C. Melick:	Note from Burgos
		L22 / L23 / L24 / L25	L26 and L27 are both congruence proofs. I didnt' combine them but could be combined.	
		L26 / L27		
triangles and quadrilaterals, supplementary angles, vertical angles Find the missing angles in triangles and quadrilaterals 2.1 By estimation comparing to a corner 90 degree angles (half 45 degree angle) obtuse acute angles 2.2 Guess and Check (in the multiple choice) 2.3 Angles between parallel lines	11 days plus consider 2 days assessments Start with qudrilaterals	Engage NY Module 1 Topic E	Notes from C. Melick:	Note from Burgos
5. Identify properties of quadrilaterals for parallelograms, rectangles, rhombuses and squares.		L28 / L29 / L30	I completely agree that there needs to be a strong focus on the properties of parallelograms. I don't think that Engage NY does a very good job covering the properties.	
6. Identify properties of quadrilaterals for parallelograms, rectangles, rhombuses and squares.				
		Focus on Properties of parallelograms		I agree. I did not use Engage NY for this section. I used materials from our prior textbooks for
7. Constructions of perpendicular bisector, altitudes, and inscribed square triangles and hexagon Medians		Module 1 Topic A	I agree we have to write our own lessons for this part E.Paco	
		L1 / L2 / L3 / L4		
Identify properties of Dilations on the coordinate plane (area & perimeter) Dilation of a line when the center of dilation: a. Is on the line b. Not on the line Dilations of shapes and lines on the coordinate grid with the center of dilation on the origin.		Engage NY Module 2 Topic A, B & C	Notes from C. Melick:	Note from Burgos
		L1 / L2 / ~~L4~~ / L5	Skipped L3 because it is a lesson on constructing the parallel method using a set square.	I skipped L3 and L4 and just focused on the side splitter theorem.

EMath Instruction (with videos)			Unit 3 Lessons		Notes from C. Melick:				
U3/L1	U3/L2	U3/L3	U3/L4	U3/L5	In L3 they put SSS, SAS, and ASA together in one lesson. Much more time needs to be				
~~U3/L6~~	~~U3/L7~~	U3/L8	U3/L9	U3/10	U3/L10 is additional proof practice.				
EMath Instruction (with videos)		Unit 6 Lessons	Unit 1 Lessons	Unit 4 Le	Notes from C. Melick:				
U6/L1	U6/L2	U6/L3	U6/L4	U6/L5					
U6/L6									
Unit 1 Emath Instruction									
U1/L1	U1/L6	U1/L7	U1/L8						
U4/L1	U4/L2	U4/L3	U4/L4	U4/L5					
~~U4/L6~~	~~U4/L7~~				Extention of inscribing circles within triangles and other polygons.				
EMath Instruction (with videos)			Unit 7 Lessons		Notes from C. Melick:				
U7/L1	U7/L2	U7/L3	U7/L4	U7/L5	U7/L12 is a proof of the Pythagorean Theorem. While intersting, it could be skipped.				



Similarity	G-MG.3	(e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*	
	G-SRT.2	similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and	
	G-SRT.5	G.SRT.B.5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric Figures.	
	G-MG.1	G.MG.A.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*	
Feb 1 - 12			
Trigonometry	G-SRT.6	G.SRT.C.6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angle	
	G-SRT.7	G.SRT.C.7 Explain and use the relationship between the sine and cosine of complementary angles.	
	G-SRT.8	G.SRT.C.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.	
) 22 - March 19			
Extending to Three Dimensions	G-GMD.1	~~G.GMD.A.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's~~	solve application problems (2 days) I can use the formulas for finding the volume of cones and pyramids to solve application problems (day 1) I can describe real objects using the three- dimensional shapes (day 2) I can calculate the volumes of real objects using the formulas for finding the volumes of cones, prisms, pyramids, and cylinders. (day 2)
	G-GMD.3	G.GMD.A.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*Visualize relationships between two-dimensional and three-dimensional objects	
	G-GMD.4	~~G.GMD.B.4 Identify the shapes of two-dimensional cross-~~ sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.	Add LT
	G-MG.1	G.MG.A.1 Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).*	Add LT
	G-MG.2	G.MG.A.2 Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).*	Add LT

	20 days plus +3 for assessemnts	L6	L7	L8	L9	L4 relates the ratio method to the parallel method/side splitter theorem.	Might want to replace and combine Lessons 6 through 9 with a lesson that is shorter and more comprehensive. Skip L10 and L11
		~~L10~~	~~L11~~	L12	L13	having the students do a dilation of a circle and just show a demonstration.	
Similarity criteria for triangles to solve problems: a. Use the similarity relationships (sides proportional and angles congruent) to and find missing side lengths and/or angle measures. b. Use the Triangle Similarity Theorems to prove that two triangles are similar.		L14	L15	L16	L17	Skip over L11. It demonstrates dilations at two different centers.	lesson on using proportions to determine unknown lengths in similar figures
		L18	~~L19~~	~~L20~~		Skip over L19 and L20. They would be good extension/application lessons if there was time.	Skip L19 and L20
Use similar triangles to identify relationships formed when an altitude is drawn in a right triangles (Geometric mean).	This can be done in 10 days	Engage NY Module 2 Topic D & E				Notes from C. Melick:	Note from Burgos
Explain and use the relationship between the sine and cosine of complementary angles.		L21	~~L22/L23~~	L24	L25	L22/L23 are Radical Review lessons. Multiply/divide/add/subract/simplify	Skip adding and subtracting radicals L23
Use trigonometric ratios to solve right triangles to find length measurements.		L26	L27	L28	L29	Skip L30, Pythagorean Identity. I think this can be skipped at this point.	Skip 30, 31 and Law of Cosines
Use inverse Trigonometric functions to finding missing acute angle.		L32	L33	L34		~~Skip L34: Using Trig to find the~~ area of a figure. Possibly an extension.	~~Paso agree with Burgos~~ and Melick to skip lessons 30,31(E.Paco)
	16 days + 3 days assessments	Engage NY Module 3 Topic A and B				Notes from C. Melick:	Note from Burgos
		L1	L2	L3	~~L4~~	L3 could be a very quick lesson. How scale factors affect area.	Combine L1-L3, Skip L4
Relationships between two-dimensional and three-dimensional objects cross sections and revolutions.		L5	L6	L7	L8	Skip L4. Proving the area of a disk.	
Use formulas to find the volumes of solids focus on cylinders, pyramids, cones, and spheres/hemisphere		L9	L10	L11	L13		Need volume of a sphere in L12
						L9 could be combined with L3 or used as a mini lesson during and opener/Do Now.	Skip L13

U7/L6	U7/L7	U7/L8	U7/L9	U7/L10							
U7/L11	~~U7/L12~~										
EMath Instruction (with videos)				Unit 8 Le	Notes from C. Melick:						
U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	U8/L6 is more practice, but is good practice.						
U8/L6											
EMath Instruction (with videos)			Unit 10 Lessons		Notes from C. Melick:						
U10/L1	U10/L2	U10/L3	U10/L4	~~U10/L5~~	U10/L5 is the area of a sector of a circle.						
U10/L6	U10/L7	U10/L8	U10/L9	U10/L10	U10/L6 is Radian Measure of Angles.						
U10/L11					~~U10/L8 only has a quick problem~~ on Cavaleri's Principle whereas it is covered extensively in Engage NY. I haven't noticed is show up						

	G-MG.3	(e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*	
March 22 - April 29			
Review Solving for Y and graphing	**A1.F.IF.7a**	Graph linear, quadratic, and exponential functions and show key features	
Coordinate Geometry	G-GPE.7	G.GPE.B.7 Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula	
	G-GPE.4	*theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the*	
	G-GPE.5	G.GPE.B.5 Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).	
	G-GPE.6	G.GPE.B.6 Find the point on a directed line segment between two given points that partitions the segment in a given ratio.	
May 3 - 14			
Quadratic Functions	**AI.F.IF.4**	For a function that models a relationship between two quantities:i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.	
	AI.F.IF.8	Write a function in different but equivalent forms to reveal and explain different properties of the function.	
	AI.F.IF9	different way (algebraically, graphically, numerically in tables, or by verbal descriptions).	
	AI.SSE.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	
	AI.APR.3	Identify zeros of polynomial functions when suitable factorizations are available.	
	AI.REI.4aa	Solve quadratic equations in one variable.	
	AI.SSE.2	Recognize and use the structure of an expression to identify ways to rewrite it.	
May 17 - 21			
	~~G-C.1~~	~~Prove2 that all circles are similar.~~	

						L12 - L13 is an extension of Cavaleri's Principle. Can be skipped.	Use the Tasks created from Explore Math to teach the volume (E.Paco)
	Graphing Lines 4 days	Graphing lines Algebra 1				Notes from C. Melick:	Note from Burgos
		T.C Lessons	T.C Lessons	T.C Lesson	T.C Lessons	What lessons are to be used for the Graphing Lines Alg I review?	
Use Coordinates methods to identify quadrilaterals using their definitions and their properties. Find the slope and length of every side.		Engage NY Module 4 Topic A, B, C, & D					
Find the equation of a line parallel or perpendicular to a given line that passes through a given point (partially)	17 days +3 assessmets	L1	L3	~~L4~~	~~L5~~	L2 can be skipped. Using Systems of Inequalities to create a shape in the coordinate plane.	I replaced L1 with a lesson on using the distance formula
		L5	L6/L7	L8	L9	L4 could be skipped.	Skip L4
Find the point on line segment that partitions the segment in a given ratio: a. When two points are given b When a line segment is given		L10	L12	L13	~~L14~~	~~L11 can be skipped because it uses~~ systems of inqualities to identify perimeter.	Skip 11
		L15				L14 can be skipped. Parametric Equations.	Skip 14
	Students will be at different places with this. Please consider 10 days on qudratics	Explore Math Digital Tasks				Notes from C. Melick:	Note from Burgos
		Part 1 real life quadratics				These will be lessons from the unit on qudratic that the district wrote or emath	
		Part 2 Quadratics Digital Tasks					
		Part 3 Using Zerors to Solve					Notes from E.Paco
		art 5 Completing the suqare (only) Rewrite in equilavent forn				New tasks would be needed to intro completing the square process very basic	Refer to lessons from Explore Math Algebra unit on Quadratics
		Engage NY Module 5 Topic D				Notes from C. Melick:	Note from Burgos

Graphing lines Algebra 1				Algebra Unit 4 Lessons	Notes from C. Melick:							
U4/L5	U4/L6	U4/L7			~~U4/L7 is just more practice.~~ Would depend on the needs of the students whether it is used or not.							
EMath Instruction (with videos)				Unit 5 Lessons								
U5/L1	U5/L2	U5/L3	U5/L4	U5/L5	U5/L9, 10, 11 was moved to Rigid Motions.							
U5/L6	U5/L7	U5/L8	~~U5/L9~~	~~U5/L10~~								
~~U5/L11~~												
EMath Instruction (with videos)				Unit 8 Lessons	Notes from C. Melick:							
U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	Question: Should completing the square be included? L4 and L5							
U8/L6	U8/L7	U8/L8										
EMath Instruction (with videos)				Unit 9 Le	Notes from C. Melick:							

Circles	~~G-C.2a~~	~~and chords. Include3 the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent~~	
	~~G-C.2b~~		
	~~G-C.5~~	~~Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.~~	
	G-GPE.1a	G.GPE.A.1 Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.	
	~~G-GPE.4~~	~~Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point (1, √3) lies on the circle centered at the origin and containing the point (0, 2).~~	
May 24 – June 15			
		Review for Regents	Review for Regents

	5 Days	L17	L17	T.C Lesson	T.C Lessons	There isn't much on this topic. I would recommend finding supplemental lessons.	I use materials from prior texbook resources for the entire unit on circles.
		District Created lesson on Using completing the squares to rewite the equation of the circle in center radius form					
							Use district created materials (E.Paco)
Write the Equation of the circle: a. Identify center and radius from the equation b. Identify center and radius from the graph c. Prove that a point is on the circle							
Review for Regents	10 days						

U9/L9					Only lesson dealing with the topic of the Equation of a Circle.						

Algebra 2 L Strategic Accelerated Learning Plan for the 2020-21 School Year (in progress)

Algebra 2 Curriculum Map

Unit Title		Coding of Standards	Common Core State Standards (CCSS)
Previous Grade Level (unfinished learning)	Current Grade Level (new content)	Major Cluster Standards	
		Supporting Standards	
		Additional Standards	
September 9 -			
UNIT 1: ***Fundamentals of Algebra*** **Equations**		**A.SSE.2**	Use the structure of an expression to identify ways to rewrite it.
		A.APR.1	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.
		A.REI.1	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
		A.REI.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
		A.CED.1	Create equations and inequalities in one variable to represent a real-world context.
		A.CED.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context.
		A.CED.4	Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations
UNIT 2: ***Fundamentals of Algebra*** **Functions**		**F.IF.1**	set (called the range) assigns to each element of the domain exactly one element of the range
		F.IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
		F.IF.4	For a function that models a relationship between two quantities: i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the
		F.IF.5	Determine the domain of a function from its graph and, where applicable, identify the appropriate domain for a function in context.
		F.IF.6	Calculate and interpret the average rate of change of a function over a specified interval.
		F.IF.7	graph, by hand in simple cases and using technology for more complicated cases
		F.IF.9	(algebraically, graphically, numerically in tables, or by verbal descriptions).
UNIT 2: **Functions**		**F.BF.3**	Identify the effect on the graph of replacing f(x) by f(x) + k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic
		F.BF.4	Find inverse functions.
		8.F.3	Interpret the equation y = mx + b as defining a linear function, whose graph is a straight line. Recognize examples of functions that are linear and non-linear.

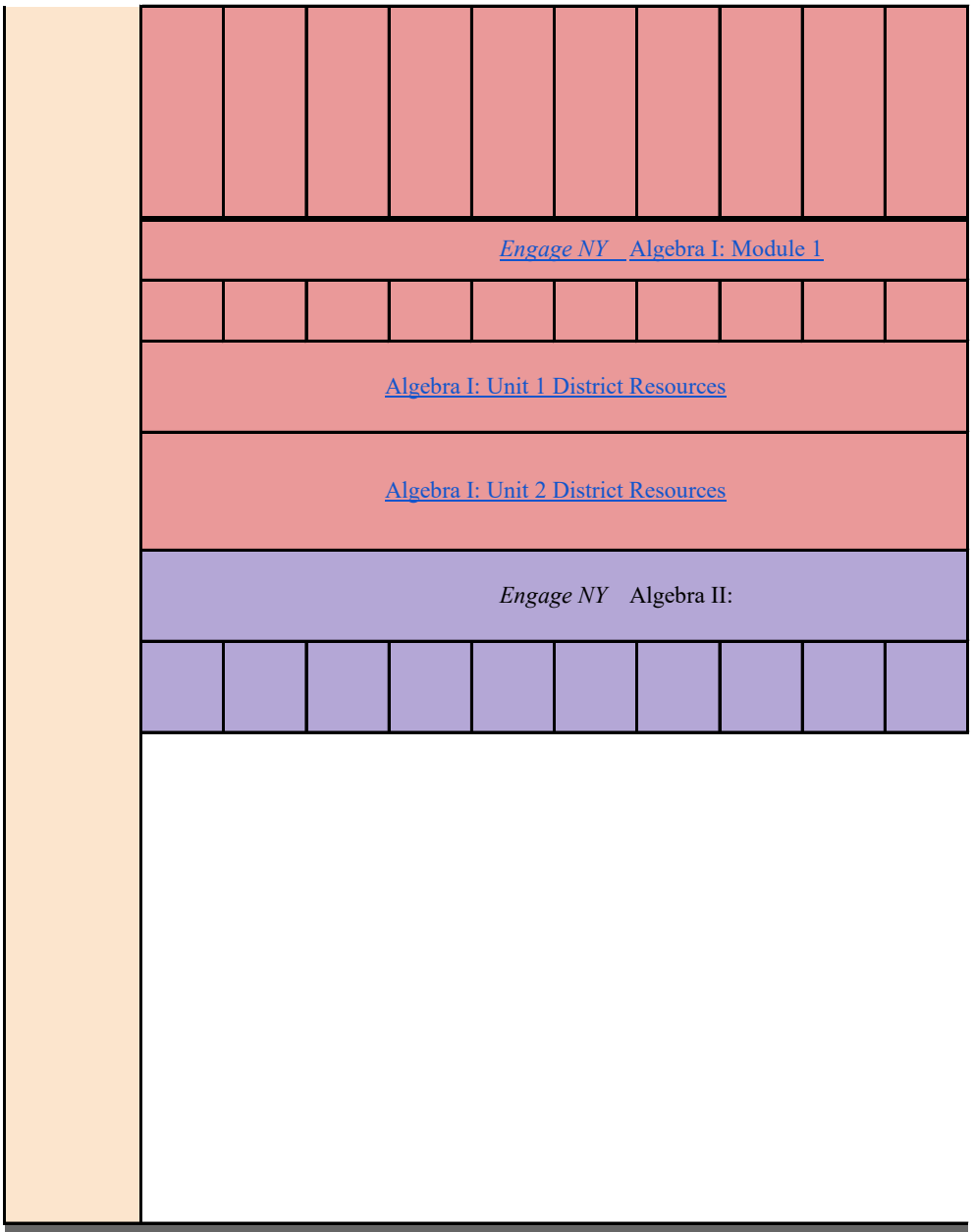
Foundational Skills and Concepts 8th Grade: Module 5 & 6	**8.F.4**	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
UNIT 2: **Linear Equations & Functions**	**A.CED.2**	Create equations and linear inequalities in two variables to represent a real-world context.
	A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.
	F.IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
	F.IF.4	For a function that models a relationship between two quantities: i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the
	F.IF.5	Determine the domain of a function from its graph and, where applicable, identify the appropriate domain for a function in context.
	F.IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
	F.BF.1	Write a function that describes a relationship between two quantities.
	F.LE.1b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another, and therefore can be modeled linearly.
	F.LE.2	Construct a linear or exponential function symbolically given:i) a graph;ii) a description of the relationship;iii) two input-output pairs (include reading these from a table).
	F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.
	S.ID.6a	Fit a function to real-world data; use functions fitted to data to solve problems in the context of the data.
	S.ID.7	Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
	S.ID.8	Calculate (using technology) and interpret the correlation coefficient of a linear fit.
	S.ID.9	Distinguish between correlation and causation.
UNIT 3: **Linear Systems**	**A.CED.3**	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context.
	A.REI.5	Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
	A.REI.6	Solve systems of linear equations in two variables both algebraically and graphically
	A.REI.7	Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line y = -3x and the circle x2 + y2 = 3.
	A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.
	A.REI.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);ii) find the solutions approximately using technology to graph the functions or make tables of values; andiii) interpret the solution in context. ★

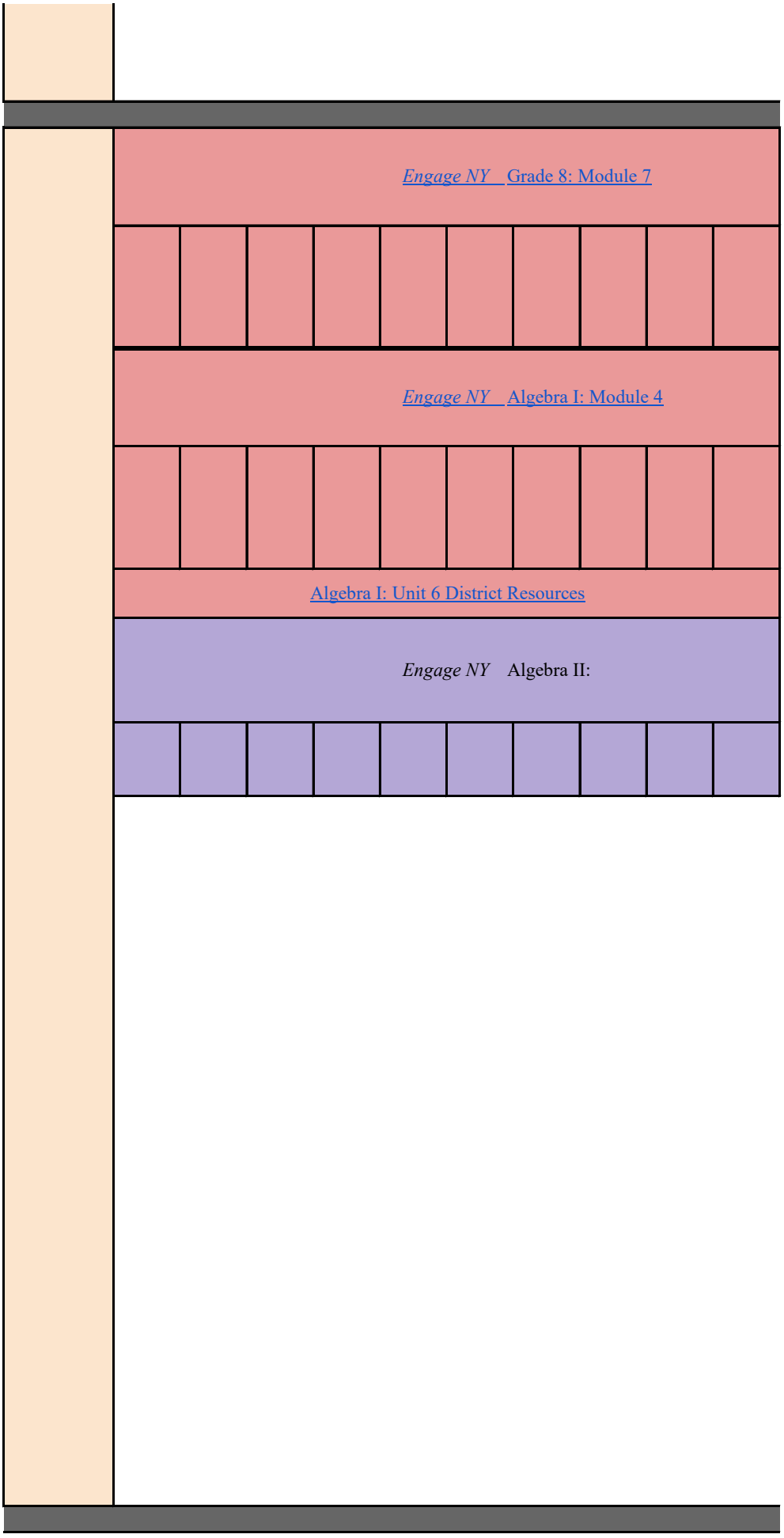
	A.REI.12	Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.
Foundational Skills and Concepts **8th Grade: Module 7**	**8.NS.1**	Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion eventually repeats. Know that other numbers that are not rational are called irrational.
	8.EE.2	Use square root and cube root symbols to represent solutions to equations of the form x2 = p and x3 = p, where p is a positive rational number. Know square roots of perfect squares up to 225 and cube roots of perfect cubes up to 125. Know that the square root of a non-perfect square is irrational.
UNIT 4: **Quadratic Equations and Functions**	**F.IF.4**	For a function that models a relationship between two quantities:i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.
	F.IF.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function
	F.IF.7	Graph linear, quadratic, and exponential functions and show key features
	F.IF.8	Write a function in different but equivalent forms to reveal and explain different properties of the function.
	F.IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
	A.SSE.2	Recognize and use the structure of an expression to identify ways to rewrite it.
	A.SSE.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
	A.APR.1	Add, subtract, and multiply polynomials and recognize that the result of the operation is also a polynomial. This forms a system analogous to the integers.
	A.APR.3	Identify zeros of polynomial functions when suitable factorizations are available.
	A.CED.1	Create equations and inequalities in one variable to represent a real-world context.
	A.REI.4b	Solve quadratic equations by inspection (e.g., for 2 = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as ± for
	A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.
	A.REI.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);ii) find the solutions approximately using technology to graph the functions or make tables of values; andiii) interpret the solution in context. ★
	F.BF.3	Using f(x) + k, k f(x), and f(x + k):i) identify the effect on the graph when replacing f(x) by f(x) + k, k f(x), and f(x + k) for specific values of k (both positive and negative);ii) find the value of k given the graphs;iii) write a new function using the value of k; and iv) use technology to experiment with cases and explore the effects on the graph

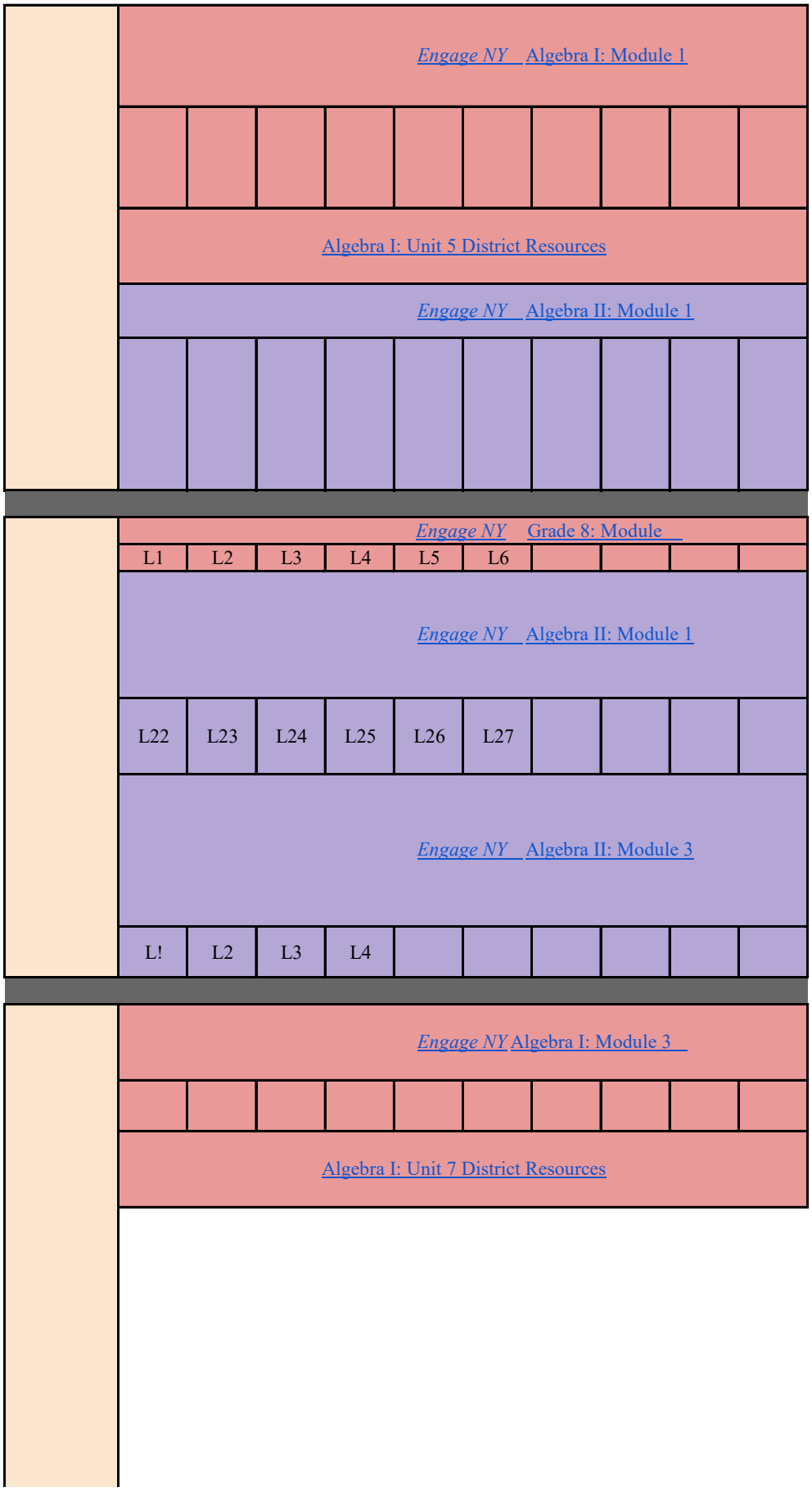
UNIT 5: **Polynomials**	**A.SSE.2**	Use the structure of an expression to identify ways to rewrite it. For example, see x4 - y4 as (x2)2 - (y2)2, thus recognizing it as a difference of squares that can be factored as (x2 - y2)(x2 + y2).
	A.SSE.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★ a. Factor a quadratic expression to reveal the zeros of the function it defines.
	A.APR.1	Add, subtract, and multiply polynomials and recognize that the result of the operation is also a polynomial. This forms a system analogous to the integers.
	A.APR.3	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the
	A.REI.4b	Solve quadratic equations by inspection (e.g., for 2 = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as ± for real numbers a and b.
Foundational Skills and Concepts **8th Grade: Module 1**	**8.EE.1**	equivalent numerical expressions. For example, 32 × 3-5 = 3-3 = 1/33 = 1/27.
UNIT 6: **Radical Functions, Rational Exponents, Function Operations**	**A.REI.1**	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
	A.REI.2	Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.
	N.RN.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 51/3 to be the cube root of 5 because we want (51/3)3 = 5(1/3)3 to hold, so (51/3)3 must equal 5.
	N.RN.2	Rewrite expressions involving radicals and rational exponents using the properties of exponents.
Foundational Skills and Concepts **Algebra I: Module 3**	**A.SSE.3**	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
	F.LE.1	Distinguish between situations that can be modeled with linear functions and with exponential functions
	F.LE.2	Construct a linear or exponential function symbolically given: a graph; a description of the relationship; two input-output pairs (include reading these from a table).
	F.LE.3	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
	F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.
	N.Q.2	Define appropriate quantities for the purpose of descriptive modeling.
	A.CED.1	Create equations and inequalities in one variable to represent a real-world context.
	F.BF.1a	Write a function that describes a relationship between two quantities

	F.IF.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*
	F.IF.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*
UNIT 7: **Exponential and Logarithmic Functions**	**F.LE.4**	For exponential models, express as a logarithm the solution to abct = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.
	F.IF.7(c,e)	Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

Instructional Days	Topic / Lesson KEY			
Anticipated # of Days	Previous Grade Level Sample: A1/L1	Current Grade Level Sample: A/L1	OMIT Lesson Sample: ~~F/L~~17	Consider Consolidating Lessons
	Engage NY Algebra I: Module 1			
	Algebra I: Unit 3 District Resources			
	Engage NY Algebra II:			
	Engage NYAlgebra I: Module			
	Algebra I: Unit District Resources			
	Engage NY Algebra II:			
	Engage NY Grade 8: Module 5 & Module 6			


Engage NY Algebra I: Module 1
Algebra I: Unit 1 District Resources
Algebra I: Unit 2 District Resources
Engage NY Algebra II:
Engage NY Algebra I: Module 1
Algebra I: Unit 4 District Resources
Engage NYAlgebra II: Module 1
L30
L31
L32


Engage NY Grade 8: Module 7
Engage NY Algebra I: Module 4
Algebra I: Unit 6 District Resources
Engage NY Algebra II:


Engage NY Algebra I: Module 1
Algebra I: Unit 5 District Resources
Engage NY Algebra II: Module 1
Engage NY Grade 8: Module
L1
L2
L3
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L6
Engage NY Algebra II: Module 1
L22
L23
L24
L25
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L27
Engage NY Algebra II: Module 3
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L2
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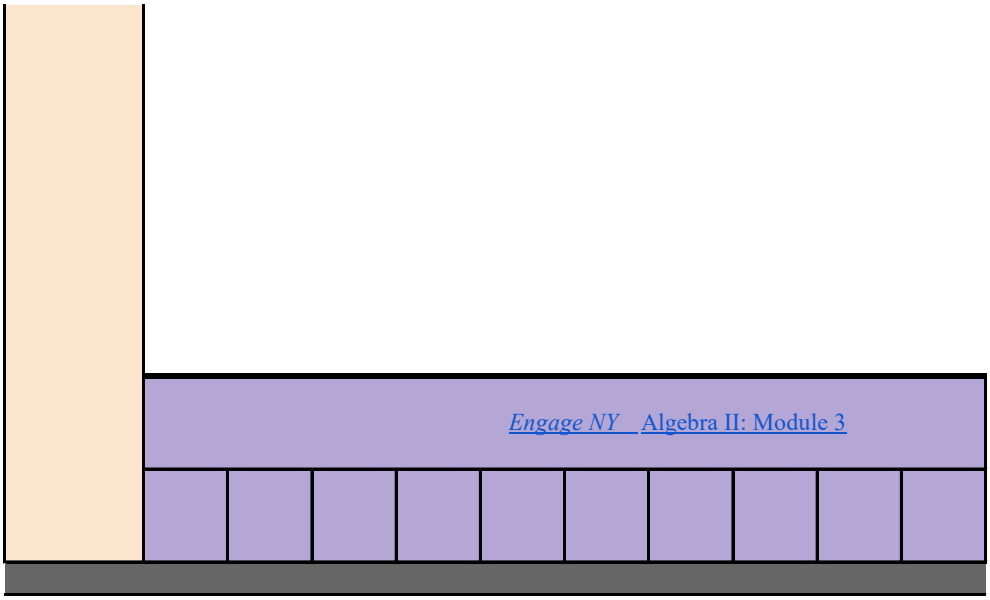
L4
Engage NY Algebra I: Module 3
Algebra I: Unit 7 District Resources


Engage NY Algebra II: Module 3

Notes from the Writer

Madi Shepard

Need to embed teaching complex numbers into this unit (should potentially be it's own unit), which will encourage more practice of solving quadratics

Geometry L Strategic Accelerated Learning Plan for the 2020-21 School Year

Unit Title		Coding of Standards	Common Core State Standards (CCSS)
Previous Grade Level (unfinished learning)	Current Grade Level (new content)	Major Cluster Standards	
		Supporting Standards	
		Additional Standards	
September 9 -			
Fundamentals to Algebra: Linear Equations and Functions		A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane.
		F.IF.1	Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then f(x) denotes the output of f corresponding to the input x. The graph of f is the graph of the equation y = f(x).
		F.IF.2	Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
		F.IF.4	For a function that models a relationship between two quantities: i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.
		F.IF.5	Determine the domain of a function from its graph and, where applicable, identify the appropriate domain for a function in context.
		F.IF.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
		F.IF.7a	Graph linear functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases
		F.IF.9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
		F.BF.1	Write a function that describes a relationship between two quantities.
		F.LE.1b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another, and therefore can be modeled linearly.
		F.LE.2	Construct a linear or exponential function symbolically given:i) a graph;ii) a description of the relationship;iii) two input-output pairs (include reading these from a table).
		F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.
Fundamentals to Algebra: Exponential Functions		A.CED.1	Create equations and inequalities in one variable and use them to solve problems.
		F.IF.7	Graph exponential functions.
		F.IF.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.

	F.LE.1	Distinguish between situations that can be modeled with linear functions and with exponential functions.
	F.LE.3	Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
	F.LE.5	Interpret the parameters in a linear or exponential function in terms of a context.
Fundamentals to Algebra: Quadratic Functions	**F.IF.4**	For a function that models a relationship between two quantities:i) interpret key features of graphs and tables in terms of the quantities; and ii) sketch graphs showing key features given a verbal description of the relationship.
	F.IF.8	Write a function in different but equivalent forms to reveal and explain different properties of the function.
	F.IF9	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).
	A.SSE.3	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.
	A.APR.3	Identify zeros of polynomial functions when suitable factorizations are available.
	A.REI.4	Solve quadratic equations in one variable.
	A.SSE.2	Recognize and use the structure of an expression to identify ways to rewrite it.
Foundations of Geometry: Unknown Angles	**G-CO.9**	Use theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
	G-CO.10	Use theorems about triangles. Theorems include: measures of interior angles of a triangle sum to 180°; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
Foundations of Geometry: Rigid Motions	**G-CO.12**	Make formal geometric constructions with a compass and straightedge. Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
	G-CO.2	Represent transformations in the plane; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus dilation).
	G-CO.3	Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
	G-CO.4	Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.

	G-CO.5	Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.
	G-CO.6	Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
	G-CO.7	Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
Foundations of Geometry: Properties of Parallelograms Midsegments, and Medians	G-CO.9	Use theorems about lines and angles.
	G-CO.10	Use theorems about triangles.
	G-CO.11	Use theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.
	G-CO.13	Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.
Foundations of Geometry: Similarity	G-SRT.1	Verify experimentally the properties of dilations given by a center and a scale factor
	G-SRT.4	Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.
	G-MG.3	Apply geometric methods to solve design problems
	G-SRT.2	Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
	G-SRT.5	Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
Foundations of Geometry: Extending to Three Dimensions	G-GMD.1	Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments.
	G-GMD.3	Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.
	G-GMD.4	Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three dimensional objects generated by rotations of two-dimensional objects.
	G-MG.1	Use geometric shapes, their measures, and their properties to describe objects
	G-MG.2	Apply concepts of density based on area and volume in modeling situations
	G-MG.3	Apply geometric methods to solve design problems

Foundations of Geometry: Coordinate Geometry	**G-GPE.7**	Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.
	G-GPE.4	Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle.
	G-GPE.5	Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
	G-GPE.6	Find the point on a directed line segment between two given points that partitions the segment in a given ratio.

Anticipated # of Days	Resources / Lesson KEY			
	Previous Grade Level Sample: A/L1	Current Grade Level Sample: A/L1	OMIT Lesson Sample: ~~F/L~~17	Consider Consolidating Lessons
15 days	Algebra 1: Unit 1 District Resources Lesson 1a, 3a, 3b, 4a, 4b Engage NY Module 3 Lesson 10 eMath Instruction Unit 3 Lessons 1 -7 match fishtank Unit 1 Lessons 2 - 7 match fishtank Unit 4 Lesson 3 eMath Instruction Unit 4 Lessons 4-7			
10 days	Algebra 1: Unit 7 District Resources Lessons 4, 5, 6 Engage NY Algebra 1 Module 3 Lessons 5, 7, 14 eMathInstruction Unit 6 Lessons 3, 4, 8			

	Match Fishtank Unit 6 Lessons 16
15 days	Algebra 1: Unit 6 District Resources Lessons 1a, 1b, 2, 3a eMath Instruction Unit 7 Lesson 3, 4, 5 eMath Instruction Unit 8 Lessons 1, 2, 3, 6
10 days	Engage NY Geometry Module 1 Topic B Lessons 6-10
25 days	Engage NY Geometry Module 1 Topic A Lessons 1-5 Engage NY Geometry Module 1 Topic C Lessons 12-16, 20

10 days	Engage NY Geometry Module 1 Topic E Lessons 28-30
20 days	Engage NY Geometry Module 2 Topics A, B & C
10 days	Engage NY Geometry Module 3

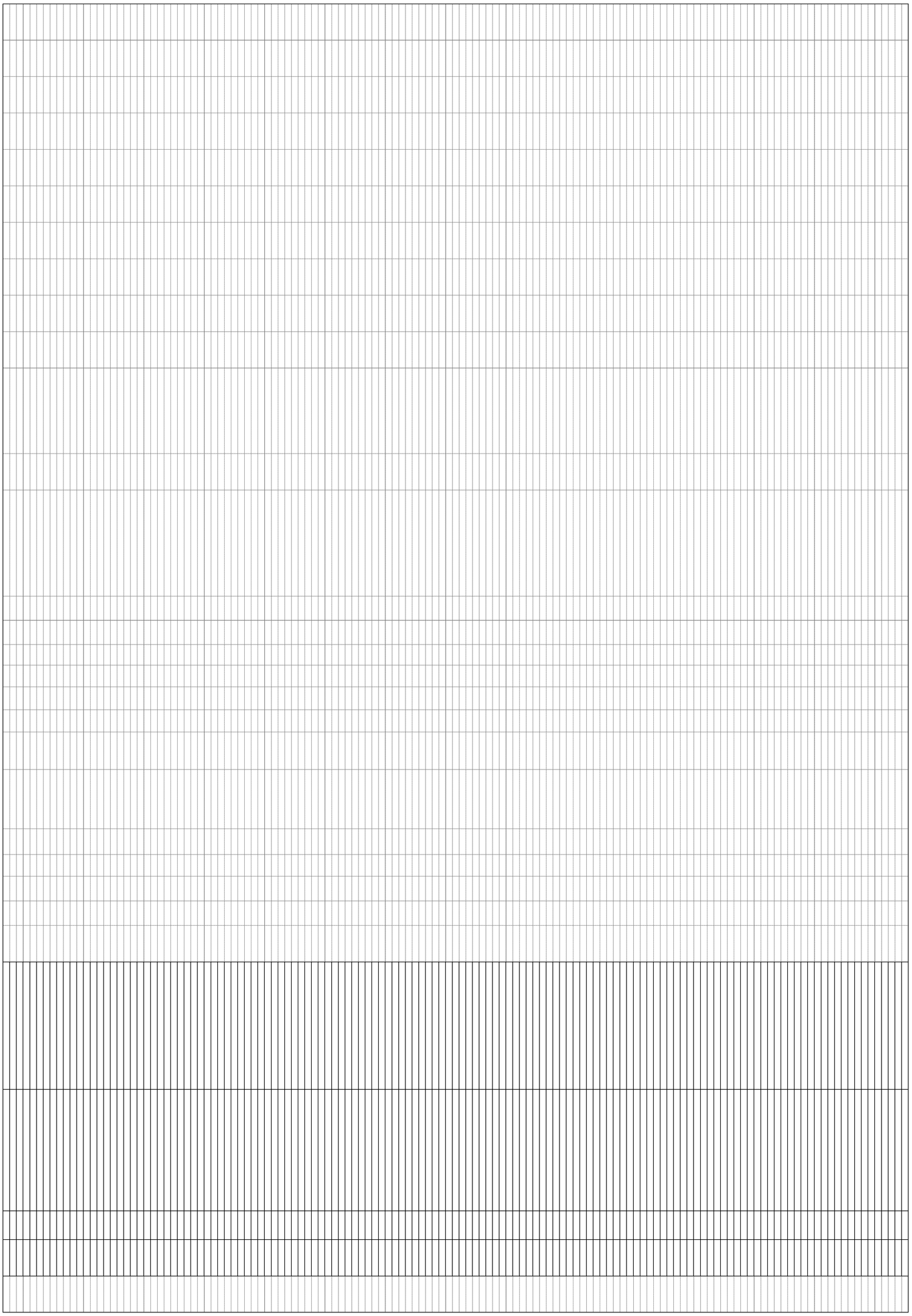
10 days	Engage NY Geometry Module 4

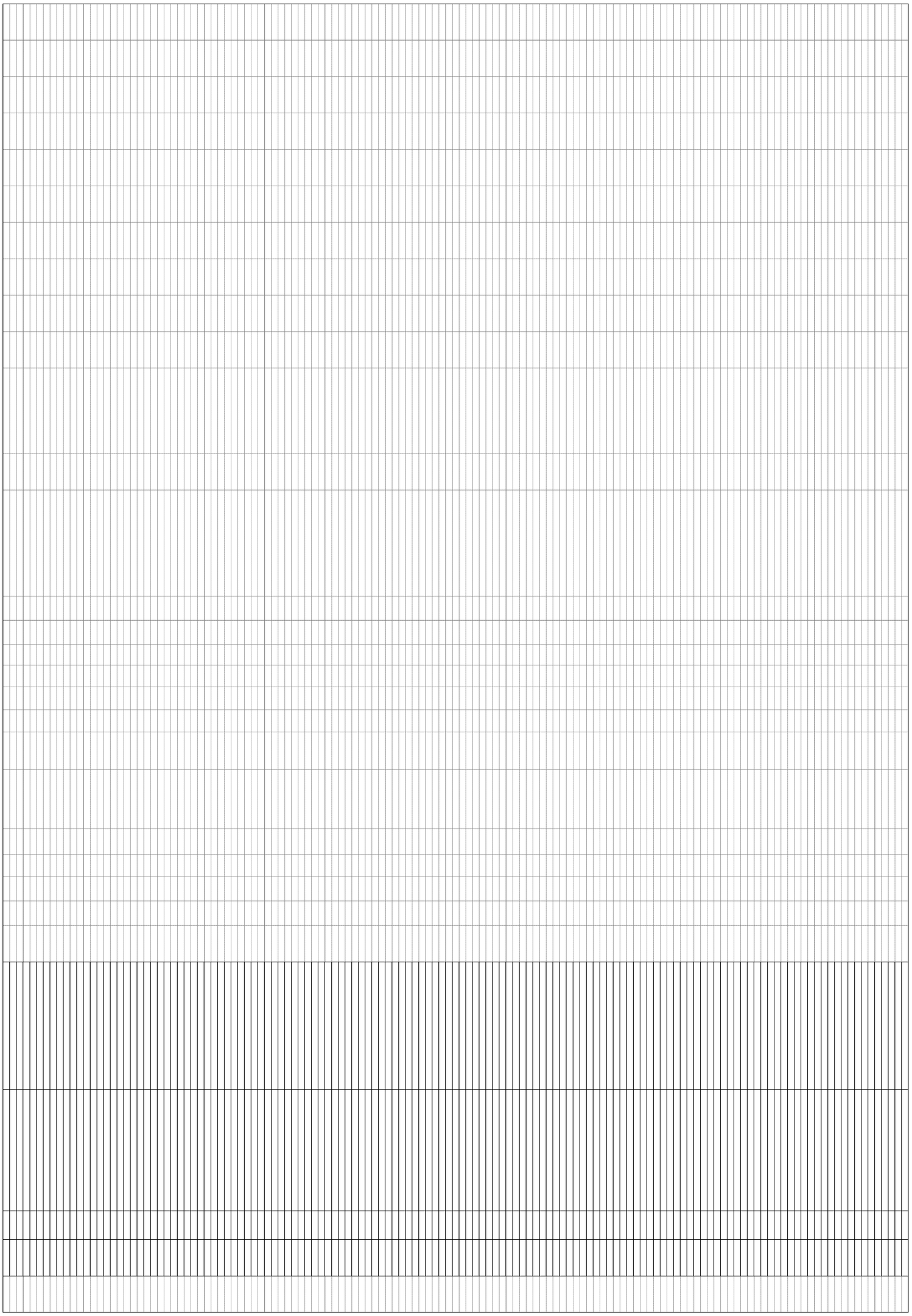
s

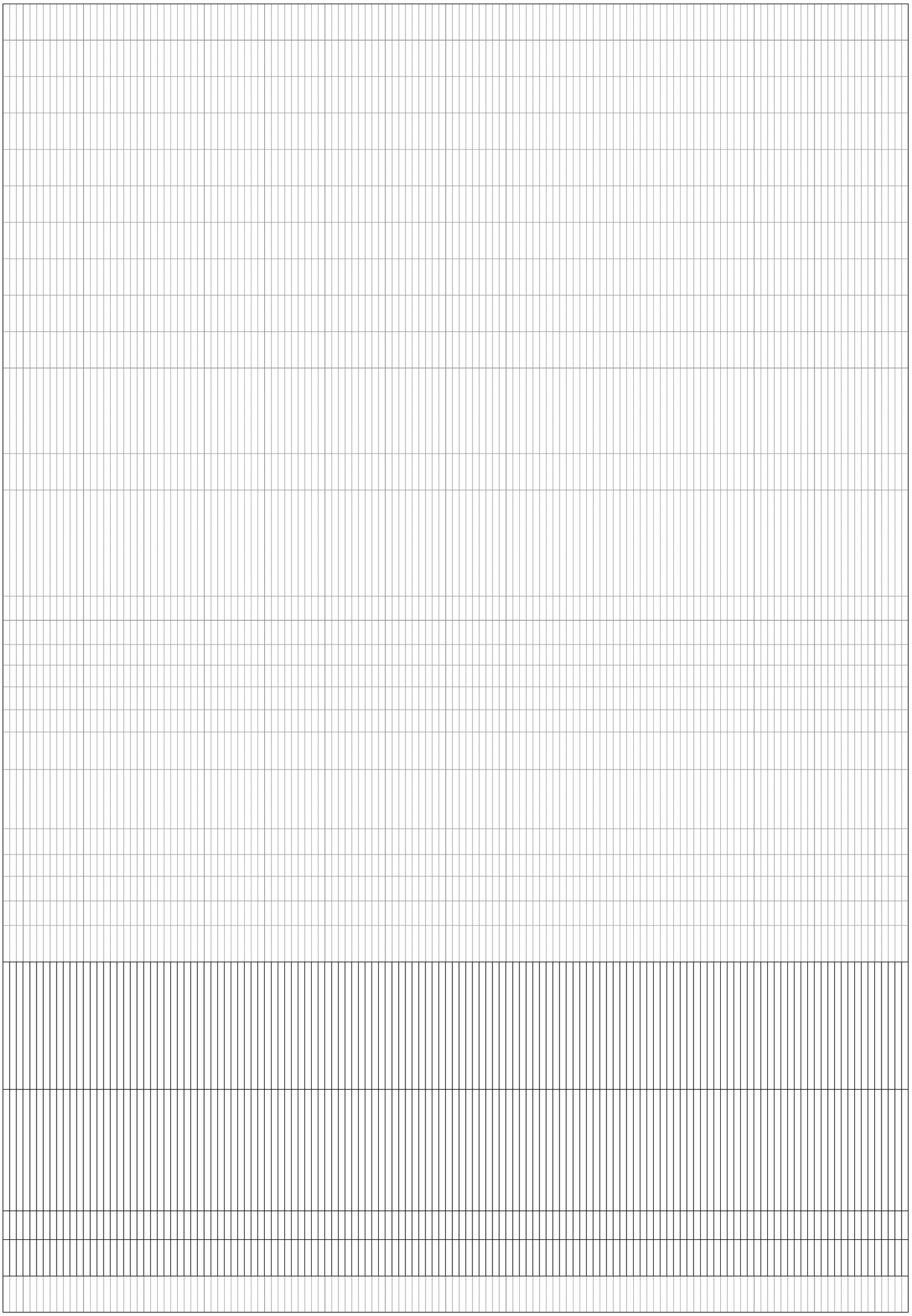
Grade level lessons: L1 Teach | Previous grade level lesson: L1 Teach | ~~L1~~ Omit | combine

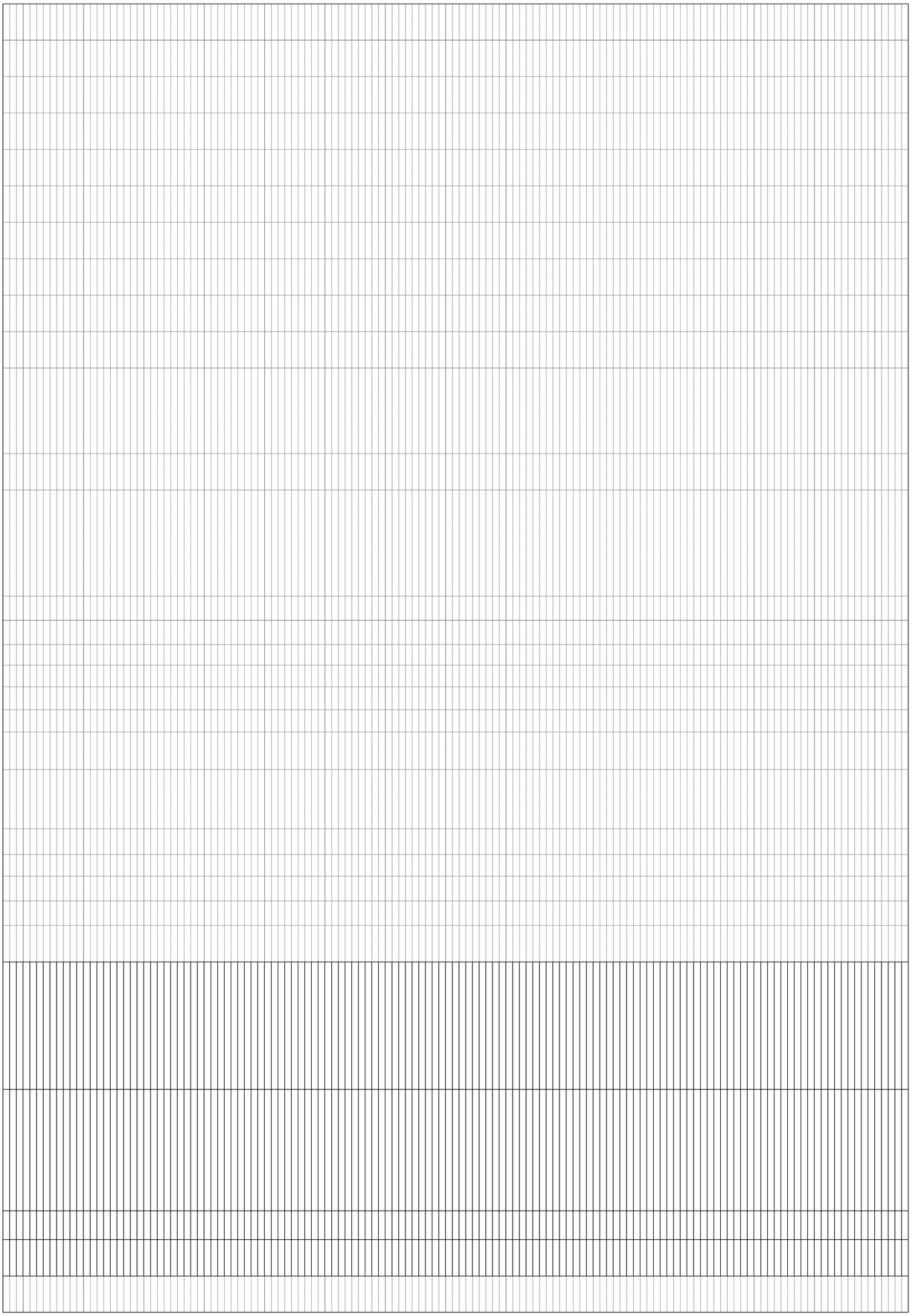
Timeline/Units Suggested by Scope and Sequence	Standard Codes	Shared Alg I	Standards for Algebra II broken down by the units	Content and skills heavily weighted on the regents	Number of Days	Curricular Materials and Daily lessons																
Sep 9 - Nov 26																						
	A.SSE.A2	x	Use the structure of an expression to identify ways to rewrite it. For example, see x4 - y4 as (x2)2 - (y2)2, thus recognizing it as a difference of squares that can be factored as (x2 - y2)(x2 + y2).			Engage NY Module 1 -				Reviewer Notes: Simpson	eMathInstruction											
	A.SSE.B3	x	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★ a. Factor a quadratic expression to reveal the zeros of the function it defines.	Equivalent Expressions -Use technology to prove two algebraic expressions are equivalent by analyzing a table and/or graph		~~M1/L1~~	M1/L2	M1/L3	M1/L4	Lesson 1 can be embedded in lesson 2-5	Review from Algebra I:							C.Melick		M.Meise	Pratima Kumar	Sam Simpson
	A.APR.B2		Know and apply the Remainder Theorem: For a polynomial ( ) and a number a, the remainder on division by − is ( ), so ( ) = 0 if and only if (−) is a factor of ( ).	Polynomial Division and Remainder theorem		M1/L5	M1/L6	~~M1/L7~~	~~M1/L8~~		Unit 7 Lessons	U7/L1	U7/L2	U7/L3	U7/L4	U7/L5	U7/L6	Lessons 1 and 2 could possibly be condensed depending on student needs.			I do this review later before I start the Quadratic unit Day 1 - refresn vocabulary and GCF	
	A.APR.B3	x	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.	Identify zeros of polynomials using technology and use the zeros to construct a rough graph of the function defined by the polynomial		M1/L9	M1/L10	M1/L11			Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	U8/L6	Foundational concepts are covered in these review units and will help with future lessons.			Day 2 - Difference between the square and factoring trinomials with a = 1	
	A.APR.6		A.APR.D.6 Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.			Review of Factoring from Alg I						U8/L7	U8/L8					I think we need to condense these lessons. Students are coming from Geometry So the unfinished learning should not be here E.Paco	were to pull these lessons apart and use parts of them	I think that the review of factoring and other Alg. 1 topics would be needed in the pathway from ALg. 1 to Alg. 2, but hopefully could be condensed or eliminated (probably condensed) in this pathway	Day 3 and 4 Factor trinomials with a > 1; factor by grouping use additional practice from Kuta software.	
											Unit 9 Lessons	~~U9/L1~~	U9/L2	U9/L3	U9/L4	U9/L5	U9/L6				terms, higher degree polynomials, u substitution, and difference and sum of cubes.	
Polynomial, Rational, and Radical Relationships (Module 1)	F.IF.7c		Graph functions expressed symbolically and show key features of the graph (by hand in simple cases and using technology for more complicated cases).★ c. Graph polynomial functions, identifying zeros when suitable factorizations are available and showing end	Properties of polynomial graphs (max, zeroes & factors, end behavior)		NY Module 1 Topic	M1/L12	M1/L13	~~M1/14~~		Algebra II Units:							U9/L1 and U9/L8 may fit better in Module 3.			I also practice factoring all through the year with bell work or weekly reviews.	
											Unit 1 Lessons	U1/L1	U1/L2	U1/L3	U1/L4	U1/L5	U1/L6				over vocabulary and spend sometime on L4 and more before starting the rational exponents later on.	
	A.REI.1	x	A.REI.A.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Solve rational and radical equations (and others graphically), and identify extraneous solutions		M1/L15	~~M1/L16~~	M1/L17	M1/L18		Unit 2 Lessons	U2/L1 &	U2/L2	U2/L4	U2/L3	U2/L6	U2/L7			I have never seen L3 or L5 on Regents. Opportunity to save time	This unit gives a good understanding of function. You may skip L3 and L5 (not tested in regents)	
					10						Unit 6 Lessons	U6/L1	U6/L2	U6/L3	U6/L4	U6/L5	U6/L6				Spend additional time on factoring and Lesson 11. You may skip L7	
	A.REI.2		A.REI.A.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.			M1/L19	~~M1/L20~~	~~M1/L21~~				U6/L7	U6/L8	U6/L9	U6/L10	U6/L11		Unit 2Lesson 1 and Lesson 5 could be combined to review functions/relations.		I agree with Pratima. I also do radical unit before quadratic unit	I do the radical unit before the Quadratic unit so I can work with imaginary solutions when using the quadratic formula.	
	A.REI.4b	x	b. Solve quadratic equations by inspection (e.g., for 2 = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as ± for real numbers a and b.	Solving Quadratic Equations graphically and algebraically		Engage NY Module 1 Topic	Combine M1/L22 and L23	~~M1/L24~~	M1/L25		Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	U8/L6	I switched the order of Lessons 3 & 4 in Unit 2 because I think they become a review from Algebra I to prepare them for the other lessons in the Unit.			Every lesson in this unit is important. however I do them in seperate units.	
												U8/L7										
	A.REI.7		Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line = −3 and the circle 2 + 2 = 3. yy xx xx yy			M1/L26	M1/L27	M1/L28	M1/L29		Unit 9 Lessons	U9/L1	U9/L2	U9/L3	U9/L4			I took out Lesson 3 in Unit 3 becuase it was a comparison between Point-Slope and Slope Intercept from Algebra I.		If we want to prepare kids for calc, they need to know that equations do not NEED to be in y=mx+b unless specified. In fact, it is probably more common to see the form y=m(x-x1)+y1	SKip L4 and combine with other units	
											Unit 10 Lesson	U10/L1	U10/L2	U10/L3	U10/L4	U10/L5	U10/L6				Teach the rational function unit separately spending more time on Rational equations L5, L6, L7, L8, L9 and L12	
	N.CN.1		Know there is a complex number such that ^2 = – 1, and every complex number has the form ^2 + ^4 with a and b real. ii i	Properties of polynomial graphs (max, zeroes & factors, end behavior)		M1/L30	~~M1/L31-35~~					U10/L7	U10/L8	U10/L9	U10/L10	U10/L11	U10/L12				Skip L13 and L14. Combine the remaining lesson in to a seperate polynomial unit	
	N.CN.2		Graph linear, quadratic, and exponential functions and show key features			Engage NY Module	M1/L36	M1/L37	M1/L38			U10/L13	U10/L14									
Dec 2 - Feb 14																						
	N.RN.1		exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For				Engage NY Module 3			Reviewer Notes:	eMathInstruction											
	N.RN.2		Rewrite expressions involving radicals and rational exponents using the properties of exponents.				Students review exponent rul				Review from Algebra I:											
	F.IF.3	x	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for n ≥ 1.			Engage NY Module 3 Topic A	M3/L1	M3/L2	M3/L3		Unit 4 Lessons	U4/L12	U4/L13					These lessons are a good review/introduction to sequences.			Yes use this prior to sequence unit	
	F.IF.4	x	quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.				M3/L4	M3/L6			Unit 9 Lessons	U9/L1	U9/L8								Make a seperate unit of simplifying roots, square roots, cube roots, nth roots with variables as well.	
	F.IF.6	x	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph				Engage NY Module 3 Topic B				Algebra II Units:							U3/L4 is relating work problems to Point-Slope and Slope Intercept.				
	F.IF.7e		Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.			M3/L7	M3/L8	~~M3/L9~~	~~M3/10~~	The topic of logs will need some supplement lessons.	Unit 3 Lessons	U3/L1	U3/L2	~~U3/L3~~	~~U3/L4~~	U3/L5	~~U3/L6~~				L2, L5 and L7 are important, Spend additional time on L7 and Go back and practice Inverse functions again after the log unit.	
	F.IF.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.			~~M3/L11~~	M3/L12	~~M3/L13~~	M3/L14			U3/L7						U3/L6 is on Piecewise Funcitons and could be skipped if we are looking to save time.				
	F.IF.9	x	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic				Engage NY Module 3 Topic C					U4/L1	U4/L2	U4/L3	U4/L4	U4/L5	U4/L6	U3/L7 Need a lot more time than just one lesson on Systems.			Split into 2 seperate units Exponential functions and Log Functions	
	F.BF.1a	x	Determine an explicit expression, a recursive process, or steps for calculation from a context.			M3/L17	M3/L18	~~M3/L19~~	~~M3/L20~~		Unit 4 Lessons	~~U4/L7~~	U4/L8	U4/L9	U4/L10	U4/L11	U4/L12					
	F.BF.1b		Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.			M3/L21	M3/L22					U4/L13	U4/L14					U4/L7 could be removed or placed in another section if time allows.				
Functions (Module 3)	F.BF.2		Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*				Engage NY Module 3 Topic D				Unit 5 Lessons	U5/L1	U5/L2	U5/L3	U5/L4	U5/L5	U5/L6				Good unit in itself	
	F.BF.3	x	+ k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using				M3/L23	M3/L24	M3/L25									U5/L6 is calculating Mortgages which is a fantastic life skill. Would like to see this lesson stay.				
	F.BF.4a		Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse. For example, f(x) =2 x3 or f(x) = (x+1)/(x-1) for x ≠ 1.				M3/L26	M3/L27	M3/L28													
	F.LE.2	x	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).				Engage NY Module 3 Topic E															
	F.LE.4		For exponential models, express as a logarithm the solution to abct = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.	Reasoning with logarithms of base ten and otherwise			M3/L29	M3/L30	M3/L31													
	F.LE.5	x	Interpret the parameters in a linear or exponential function in terms of a context.				~~M3/L33~~	~~M3/L34~~														

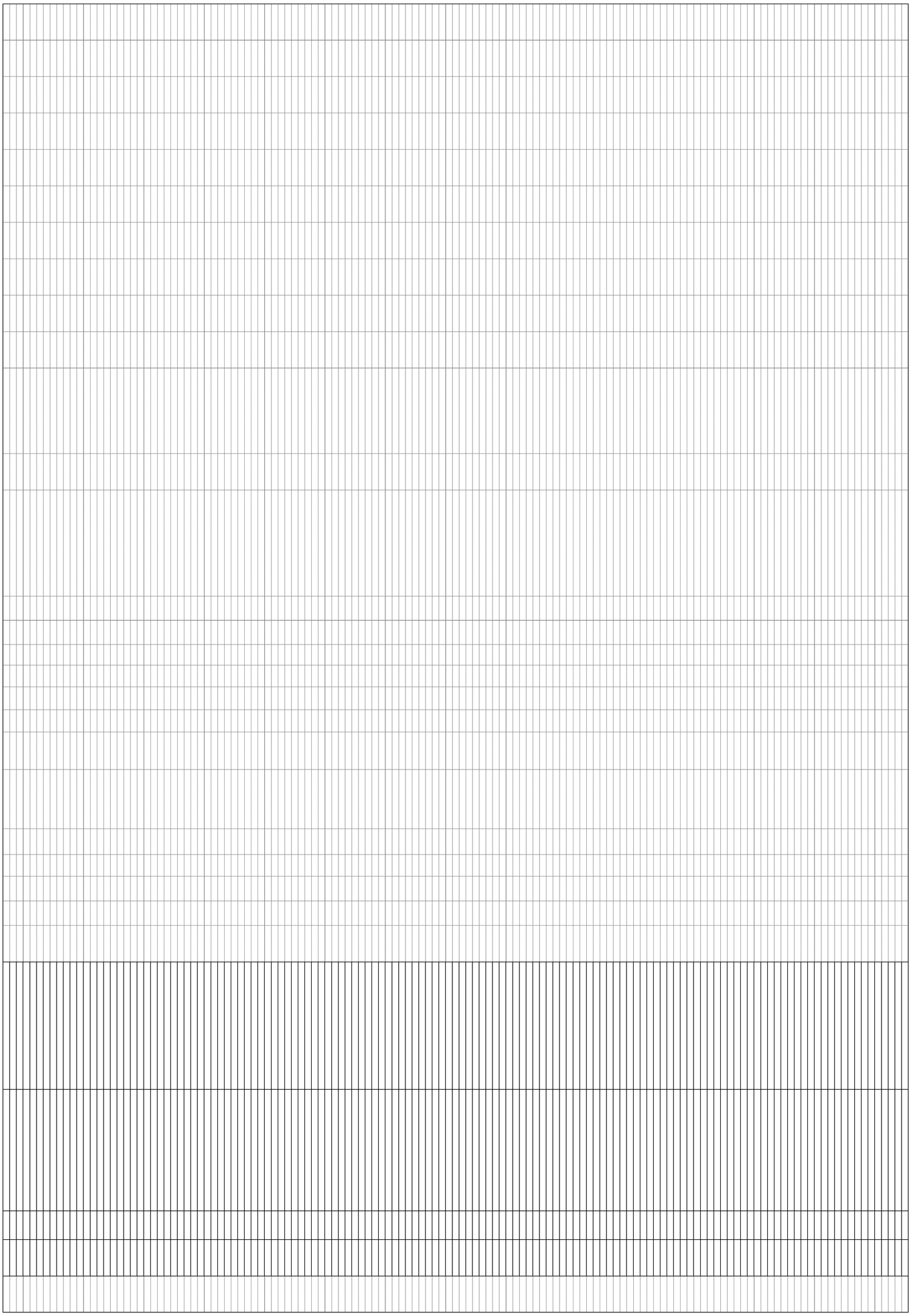
	A.CED.1	x	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.																	
	A.SSE.3c	x	Use the properties of exponents to transform expressions for exponential functions. For example the expression 1.15t can be rewritten as (1.151/12)12t ≈ 1.01212t to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.																	
	A.SSE.4		Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.*																	
	A.REI.11	x	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																	
Feb 24-Apr 17																				
Inferences and Conclusions from Data (Module 4)	S.IC.2		Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?				Engage NY Module 4			Reviewer Notes:	Algebra II Units:									
	S.IC.3		Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.		M4/L1	M4/L2	M4/L3	M4/L4	M4/L5		Unit 12 Lesson	U12/L1	U12/L2	U12/L3	U12/L4	U12/L5	U12/L6			This unit is good as it is.
	S.IC.4		Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.		M4/L6	M4/L7	M4/L8	M4/L9	M4/L10		Unit 13 Lesson	U13/L1	U13/L2	U13/L3	U13/L4	U13/L5	U13/L6		Regents stats questions are pretty simple, and thus are points kids NEED to get. Many struggle with concept of bias for some reason	Important concepts to understand this it unit are L2 standard deviation, L3 normal distribution, L4 z score and L10 margin of error. L9 - go over regents questions first, they are relatively simple you don't need to
	S.IC.6		Evaluate reports based on data.		M4/L11	M4/L12	M4/L13	M4/L14	M4/L15			U13/L7	U13/L8	U13/L9	U13/L10	U13/L11	~~U13/L12~~	U13/L12 investigates other types of regression.		
	S.CP.1		Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").		M4/L16	M4/L17	M4/L18	M4/L19	M4/L20											
	S.CP.4		*data when two categories are associated with each object being classified. Use the two-way table as a*		M4/L21	M4/L22	M4/L23	M4/L24	M4/L25											
	S.CP.7		Apply the Addition Rule, P(A or B) = P(A) + P(B) - P(A and B), and interpret the answer in terms of the model.	Probability 15.1 Probability using a two way table including conditional probability 15.2 Using P(A)*P(B) = P(A intersect B) or P(A|B) = P(A) to prove independence	M4/L26	M4/L27	M4/L28	M4/L29	M4/L30		Geometry Unit									
	S.ID.4		Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.	Normal Distribution 16.1 Find percent of data in between any two given values using technology (normalcdf on calculator) 16.2 Show simulation dot histograms from regents		Geometry Unit Engage NY Module 2 Topic D &					EMath Instruction (with videos)									
Trigonometry Geometry Unit	G-SRT.6		G.SRT.C.6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angle			L21	~~L22/L23~~	L24	L25		Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4					
	G-SRT.7		G.SRT.C.7 Explain and use the relationship between the sine and cosine of complementary angles.			L26	L27	L28	L29			U8/L5	U8/L6							
	G-SRT.8		Theorem to solve right triangles in applied problems.			L32	L33	L34												
Apr 20 - May 29																				
Trigonometric Functions (Module 2)	F.IF.7e		Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.	Trig graphs 17.1 Identify the amplitude, period, midline, max, min given a graph or function rule			Engage NY Module 2 Topic A				Algebra II Units:									
	F.TF.1		Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.		Review (2) SO	M2/L1	M2/L2	M2/L3	M2/L4		Unit 11 Lesson	U11/L1	U11/L2	U11/L3	U11/L4	U11/L5	U11/L6		Radian measures are HUGE if kids are going beyond Alg 2	Split this into 2 Units - spend 2 days of review of trig ratio SOHCAHTOA from grometry before starting
	F.TF.2		enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.		Trig Ratio 10	M2/L5	M2/L6	M2/L7	M2/L8			U11/L7	U11/L8	U11/L9	U11/L10	U11/L11				Unit 1: Trig Ratio L1 - L5 and L11; Talk about Tangent ratio and Go over Reciprocal trig functions L11 after L2 so you
	F.TF.5		Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.		Trig Graphs 10	M2/L9	M2/L10													Unit 2: Graphs of Trig functions. L7 - 9; Skip L10 if you dont have time. Additional practice from jamp
	F.TF.8		Prove the Pythagorean identity sin2(θ) + cos2(θ) = 1 and use it to find sin(θ), cos(θ), or tan(θ) given sin(θ), cos(θ), or tan(θ) and the quadrant of the angle.																	
	S.ID.6a	x	Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Use exponential models to represent data (also regression)																

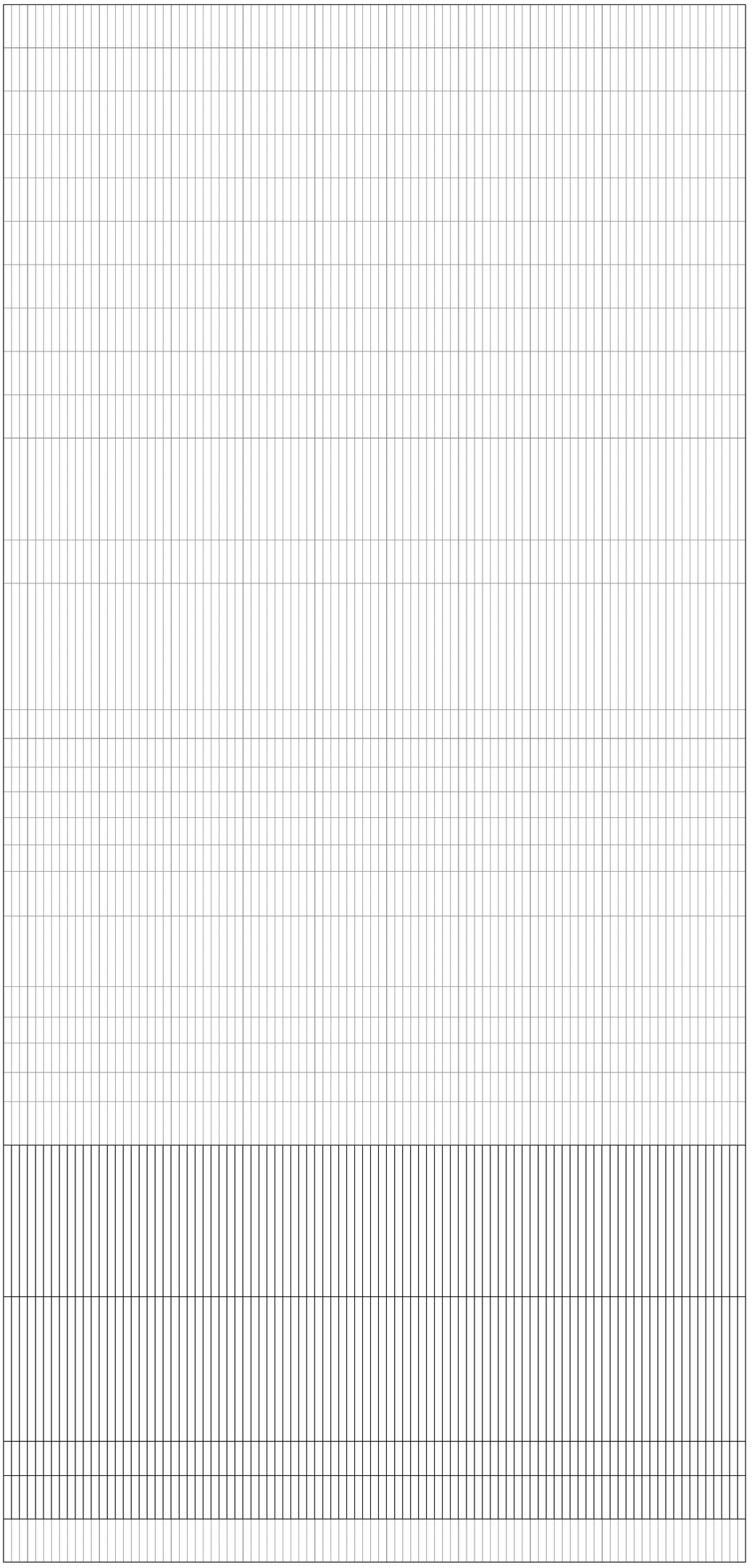












Grade level lessons: L1 Teach | Previous grade level lesson: L1 Teach | ~~L1~~ Omit | combine

Timeline/Units Suggested by Scope and Sequence	Standard Codes	Shared Alg I	Standards for Algebra II broken down by the units	Content and skills heavily weighted on the regents	Number of Days	Curricular Materials and Daily lessons																
Sep 9 - Nov 26																						
Polynomial, Rational, and Radical Relationships (Module 1)	A.SSE.A2	x	Use the structure of an expression to identify ways to rewrite it. For example, see x4 - y4 as (x2)2 - (y2)2, thus recognizing it as a difference of squares that can be factored as (x2 - y2)(x2 + y2).			Engage NY Module 1 -				Reviewer Notes: Simpson	eMathInstruction											
	A.SSE.B3	x	Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.★ a. Factor a quadratic expression to reveal the zeros of the function it defines.	Equivalent Expressions -Use technology to prove two algebraic expressions are equivalent by analyzing a table and/or graph		~~M1/L1~~	M1/L2	M1/L3	M1/L4	Include synthetic division w/M1L3.	Review from Algebra I:							C.Melick		M.Meise	Pratima Kumar	Sam Simpson
	A.APR.B2		Know and apply the Remainder Theorem: For a polynomial ( ) and a number a, the remainder on division by − is ( ), so ( ) = 0 if and only if (−) is a factor of ( ).	Polynomial Division and Remainder theorem		M1/L5	M1/L6	~~M1/L7~~	~~M1/L8~~		Unit 7 Lessons	U7/L1	U7/L2	U7/L3	U7/L4	U7/L5	U7/L6	Lessons 1 and 2 could possibly be condensed depending on student needs.			I do this review later before I start the Quadratic unit Day 1 - refresn vocabulary and GCF	
	A.APR.B3	x	Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.	Identify zeros of polynomials using technology and use the zeros to construct a rough graph of the function defined by the polynomial		M1/L9	M1/L10	M1/L11		Omit M1L10 create as bellwork.	Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	U8/L6	Foundational concepts are covered in these review units and will help with future lessons.			Day 2 - Difference between the square and factoring trinomials with a = 1	
	A.APR.6		A.APR.D.6 Rewrite simple rational expressions in different forms; write a(x)/b(x) in the form q(x) + r(x)/b(x), where a(x), b(x), q(x), and r(x) are polynomials with the degree of r(x) less than the degree of b(x), using inspection, long division, or, for the more complicated examples, a computer algebra system.			Review of Factoring from Alg I						U8/L7	U8/L8					I think we need to condense these lessons. Students are coming from Geometry So the unfinished learning should not be here E.Paco	were to pull these lessons apart and use parts of them	I think that the review of factoring and other Alg. 1 topics would be needed in the pathway from ALg. 1 to Alg. 2, but hopefully could be condensed or eliminated (probably condensed) in this pathway	Day 3 and 4 Factor trinomials with a > 1; factor by grouping use additional practice from Kuta software.	
											Unit 9 Lessons	~~U9/L1~~	U9/L2	U9/L3	U9/L4	U9/L5	U9/L6				terms, higher degree polynomials, u substitution, and difference and sum of cubes.	
	F.IF.7c		Graph functions expressed symbolically and show key features of the graph (by hand in simple cases and using technology for more complicated cases).★ c. Graph polynomial functions, identifying zeros when suitable factorizations are available and showing end	Properties of polynomial graphs (max, zeroes & factors, end behavior)		NY Module 1 Topic	M1/L12	M1/L13	~~M1/14~~		Algebra II Units:							U9/L1 and U9/L8 may fit better in Module 3.			I also practice factoring all through the year with bell work or weekly reviews.	
											Unit 1 Lessons	U1/L1	U1/L2	U1/L3	U1/L4	U1/L5	U1/L6				over vocabulary and spend sometime on L4 and more before starting the rational exponents later on.	
	A.REI.1	x	A.REI.A.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.	Solve rational and radical equations (and others graphically), and identify extraneous solutions		M1/L15	~~M1/L16~~	M1/L17	M1/L18		Unit 2 Lessons	U2/L1 &	U2/L2	U2/L4	U2/L3	U2/L6	U2/L7			I have never seen L3 or L5 on Regents. Opportunity to save time	This unit gives a good understanding of function. You may skip L3 and L5 (not tested in regents)	
					10						Unit 6 Lessons	U6/L1	U6/L2	U6/L3	U6/L4	U6/L5	U6/L6				Spend additional time on factoring and Lesson 11. You may skip L7	
	A.REI.2		A.REI.A.2 Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.			M1/L19	~~M1/L20~~	~~M1/L21~~				U6/L7	U6/L8	U6/L9	U6/L10	U6/L11		Unit 2Lesson 1 and Lesson 5 could be combined to review functions/relations.		I agree with Pratima. I also do radical unit before quadratic unit	I do the radical unit before the Quadratic unit so I can work with imaginary solutions when using the quadratic formula.	
	A.REI.4b	x	b. Solve quadratic equations by inspection (e.g., for 2 = 49), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as ± for real numbers a and b.	Solving Quadratic Equations graphically and algebraically		Engage NY Module 1 Topic	Combine M1/L22 and L23	~~M1/L24~~	M1/L25		Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4	U8/L5	U8/L6	I switched the order of Lessons 3 & 4 in Unit 2 because I think they become a review from Algebra I to prepare them for the other lessons in the Unit.			Every lesson in this unit is important. however I do them in seperate units.	
												U8/L7										
	A.REI.7		Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line = −3 and the circle 2 + 2 = 3. yy xx xx yy			M1/L26	M1/L27	M1/L28	M1/L29		Unit 9 Lessons	U9/L1	U9/L2	U9/L3	U9/L4			I took out Lesson 3 in Unit 3 becuase it was a comparison between Point-Slope and Slope Intercept from Algebra I.		If we want to prepare kids for calc, they need to know that equations do not NEED to be in y=mx+b unless specified. In fact, it is probably more common to see the form y=m(x-x1)+y1	SKip L4 and combine with other units	
											Unit 10 Lesson	U10/L1	U10/L2	U10/L3	U10/L4	U10/L5	U10/L6				Teach the rational function unit separately spending more time on Rational equations L5, L6, L7, L8, L9 and L12	
	N.CN.1		Know there is a complex number such that ^2 = – 1, and every complex number has the form ^2 + ^4 with a and b real. ii i	Properties of polynomial graphs (max, zeroes & factors, end behavior)		M1/L30	~~M1/L31-35~~					U10/L7	U10/L8	U10/L9	U10/L10	U10/L11	U10/L12				Skip L13 and L14. Combine the remaining lesson in to a seperate polynomial unit	
	N.CN.2		Graph linear, quadratic, and exponential functions and show key features			Engage NY Module	M1/L36	M1/L37	M1/L38			U10/L13	U10/L14									
Dec 2 - Feb 14																						
Functions (Module 3)	N.RN.1		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 51/3 to be the cube root of 5 because we want (51/3)3 = 5(1/3)3 to hold, so (51/3)3				Engage NY Module 3			Reviewer Notes:	eMathInstruction											
	N.RN.2		Rewrite expressions involving radicals and rational exponents using the properties of exponents.				Students review exponent rul				Review from Algebra I:											
	F.IF.3	x	Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for n ≥ 1.			Engage NY Module 3 Topic A	M3/L1	M3/L2	M3/L3		Unit 4 Lessons	U4/L12	U4/L13					These lessons are a good review/introduction to sequences.			Yes use this prior to sequence unit	
	F.IF.4	x	quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative;				M3/L4	M3/L6			Unit 9 Lessons	U9/L1	U9/L8								Make a seperate unit of simplifying roots, square roots, cube roots, nth roots with variables as well.	
	F.IF.6	x	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph				Engage NY Module 3 Topic B				Algebra II Units:							U3/L4 is relating work problems to Point-Slope and Slope Intercept.				
	F.IF.7e		Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.			M3/L7	M3/L8	~~M3/L9~~	~~M3/10~~	The topic of logs will need some supplement lessons.	Unit 3 Lessons	U3/L1	U3/L2	~~U3/L3~~	~~U3/L4~~	U3/L5	~~U3/L6~~				L2, L5 and L7 are important, Spend additional time on L7 and Go back and practice Inverse functions again after the log unit.	
	F.IF.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.			~~M3/L11~~	M3/L12	~~M3/L13~~	M3/L14			U3/L7						U3/L6 is on Piecewise Funcitons and could be skipped if we are looking to save time.				
	F.IF.9	x	Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic				Engage NY Module 3 Topic C					U4/L1	U4/L2	U4/L3	U4/L4	U4/L5	U4/L6	U3/L7 Need a lot more time than just one lesson on Systems.			Split into 2 seperate units Exponential functions and Log Functions	
	F.BF.1a	x	Determine an explicit expression, a recursive process, or steps for calculation from a context.			M3/L17	M3/L18	~~M3/L19~~	~~M3/L20~~		Unit 4 Lessons	~~U4/L7~~	U4/L8	U4/L9	U4/L10	U4/L11	U4/L12					
	F.BF.1b		Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.			M3/L21	M3/L22					U4/L13	U4/L14					U4/L7 could be removed or placed in another section if time allows.				
	F.BF.2		Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.*				Engage NY Module 3 Topic D				Unit 5 Lessons	U5/L1	U5/L2	U5/L3	U5/L4	U5/L5	U5/L6				Good unit in itself	
	F.BF.3	x	+ k, k f(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions				M3/L23	M3/L24	M3/L25									U5/L6 is calculating Mortgages which is a fantastic life skill. Would like to see this lesson stay.				
	F.BF.4a		Solve an equation of the form f(x) = c for a simple function f that has an inverse and write an expression for the inverse. For example, f(x) =2 x3 or f(x) = (x+1)/(x-1) for x ≠ 1.				M3/L26	M3/L27	M3/L28													
	F.LE.2	x	Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).				Engage NY Module 3 Topic E															
	F.LE.4		For exponential models, express as a logarithm the solution to abct = d where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.	Reasoning with logarithms of base ten and otherwise			M3/L29	M3/L30	M3/L31													

	F.LE.5	x	Interpret the parameters in a linear or exponential function in terms of a context.				~~M3/L33~~	~~M3/L34~~												
	A.CED.1	x	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.																	
	A.SSE.3c	x	Use the properties of exponents to transform expressions for exponential functions. For example the expression 1.15t can be rewritten as (1.151/12)12t ≈ 1.01212t to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.																	
	A.SSE.4		Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.*																	
	A.REI.11	x	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																	
Feb 24-Apr 17																				
	S.IC.2		Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5. Would a result of 5 tails in a row cause you to question the model?			Engage NY Module 4				Reviewer Notes:	Algebra II Units:									
	S.IC.3		Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.		M4/L1	M4/L2	M4/L3	M4/L4	M4/L5		Unit 12 Lesson	U12/L1	U12/L2	U12/L3	U12/L4	U12/L5	U12/L6			This unit is good as it is.
	S.IC.4		Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.		M4/L6	M4/L7	M4/L8	M4/L9	M4/L10		Unit 13 Lesson	U13/L1	U13/L2	U13/L3	U13/L4	U13/L5	U13/L6		Regents stats questions are pretty simple, and thus are points kids NEED to get. Many struggle with concept of bias for some reason	Important concepts to understand this it unit are L2 standard deviation, L3 normal distribution, L4 z score and L10 margin of error. L9 - go over regents questions first, they are relatively simple you don't need to
Inferences and Conclusions from Data (Module 4)	S.IC.6		Evaluate reports based on data.		M4/L11	M4/L12	M4/L13	M4/L14	M4/L15			U13/L7	U13/L8	U13/L9	U13/L10	U13/L11	~~U13/L12~~	U13/L12 investigates other types of regression.		
	S.CP.1		Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").		M4/L16	M4/L17	M4/L18	M4/L19	M4/L20											
	S.CP.4		*data when two categories are associated with each object being classified. Use the two-way table as a*		M4/L21	M4/L22	M4/L23	M4/L24	M4/L25											
	S.CP.7		Apply the Addition Rule, P(A or B) = P(A) + P(B) - P(A and B), and interpret the answer in terms of the model.	Probability 15.1 Probability using a two way table including conditional probability 15.2 Using P(A)*P(B) = P(A intersect B) or P(A|B) = P(A) to prove independence	M4/L26	M4/L27	M4/L28	M4/L29	M4/L30		Geometry Unit									
	S.ID.4		Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.	Normal Distribution 16.1 Find percent of data in between any two given values using technology (normalcdf on calculator) 16.2 Show simulation dot histograms from regents		Geometry Unit Engage NY Module 2 Topic D &					EMath Instruction (with videos)									
Trigonometry Geometry Unit	G-SRT.6		G.SRT.C.6 Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angle			L21	~~L22/L23~~	L24	L25		Unit 8 Lessons	U8/L1	U8/L2	U8/L3	U8/L4					
	G-SRT.7		G.SRT.C.7 Explain and use the relationship between the sine and cosine of complementary angles.			L26	L27	L28	L29			U8/L5	U8/L6							
	G-SRT.8		Theorem to solve right triangles in applied problems.			L32	L33	L34												
Apr 20 - May 29																				
	F.IF.7e		Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.	Trig graphs 17.1 Identify the amplitude, period, midline, max, min given a graph or function rule		Engage NY Module 2 Topic A					Algebra II Units:									
	F.TF.1		Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.		Review (2) SO	M2/L1	M2/L2	M2/L3	M2/L4		Unit 11 Lesson	U11/L1	U11/L2	U11/L3	U11/L4	U11/L5	U11/L6		Radian measures are HUGE if kids are going beyond Alg 2	Split this into 2 Units - spend 2 days of review of trig ratio SOHCAHTOA from grometry before starting
Trigonometric Functions (Module 2)	F.TF.2		enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.		Trig Ratio 10	M2/L5	M2/L6	M2/L7	M2/L8			U11/L7	U11/L8	U11/L9	U11/L10	U11/L11				Unit 1: Trig Ratio L1 - L5 and L11; Talk about Tangent ratio and Go over Reciprocal trig functions L11 after L2 so you
	F.TF.5		Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.		Trig Graphs 10	M2/L9	M2/L10													Unit 2: Graphs of Trig functions. L7 - 9; Skip L10 if you dont have time. Additional practice from jamp
	F.TF.8		Prove the Pythagorean identity sin2(θ) + cos2(θ) = 1 and use it to find sin(θ), cos(θ), or tan(θ) given sin(θ), cos(θ), or tan(θ) and the quadrant of the angle.																	
	S.ID.6a	x	Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.	Use exponential models to represent data (also regression)