



15	44 – 67	C23	L2	Given a quadratic function representing the path of an object, find the time it takes the object to reach its maximum height.
16	44 – 67	C9	L2	Convert a quadratic function from general form to standard form.
17	44 – 67	C1,C23,C31	L3	Determine a quadratic function that models real-world phenomena.
18	(Unit 2) 70 – 81	C16,C17,C30	L2	Describe the rate of change represented in a graph.
19	70 – 81	C17,C16,B4	L2	Find the average rate of change of an object given the height of the object over time.
20	(Unit 3) 84 – 113	C4,C29,B2	L2	Identify a type of sequence.
21	84 – 113	C33	L1	Given an exponential function, identify growth/decay curves.
22	84 – 113	C11,C4,C33,C29	L2	Determine an exponential function from a table of values.
23	84 – 113	C2,C11	L2	Determine an exponential equation that models real-world phenomena.
24	84 – 113	C25,33	L1	Determine the initial value of an exponential function which models real-world phenomena.
25	84 – 113	C11	L2	Identify an equivalent form of an exponential expression.
26	84 – 113	C33,C3	L1	Given an exponential function, identify the horizontal asymptote.
27	84 – 113	C24,B1,B12	L2	Solve an exponential equation.
28	84 – 113	B12	L2	Using the laws of exponents, simplify a rational expression.
29	84 – 113	B13,B12	L2	Using the laws of logarithms, simplify a logarithmic expression.
30	84 – 113	C19,C11	L1	Identify inverse functions in logarithmic form and exponential form.
31	84 – 113	C11	L1	Convert an equation from exponential form to logarithmic form.
32	84 – 113	C11,C33,C34	L1	Identify the graph of an exponential function.
33	84 – 113	B13,B12	L2	Evaluate a logarithmic expression.
34	84 – 113	B13,C24,B12,B1	L2	Solve a logarithmic equation using the laws of logarithms.
35	84 – 113	B12,A5	L2	Evaluate an exponential expression.
36	84 – 113	C24,B1,C11	L2	Solve an exponential equation involving unlike bases.
37	(Unit 4) 116 – 141	E12	L1	Identify the converse of a statement.
38	116 – 141	E3,E13	L1	Match a mapping rule to a transformed graph of $x^2 + y^2 = 1$ .
39	116 – 141	E13,E16	L1	Given a description of the transformations of the unit circle, $x^2 + y^2 = 1$ , identify the equation of a transformed circle.

40	116 – 141	E7	L2	Determine a missing coordinate using the properties of the slopes of parallel lines.
41	116 – 141	E7	L2	Using chord properties, determine the length of a line segment within a circle.
42	116 – 141	E4	L2	Using chord properties, find the slope of a line segment inside a circle.
43	116 – 141	E4	L2	Using angle properties, find the measure of an angle inside a circle.
44	116 – 141	E4	L2	Using tangent and chord properties, determine the measure of an angle inside a circle.
45	116 – 141	E14,E3	L2	Given the equation of an ellipse, determine the length of the major/minor axis of the ellipse.
46	116 – 141	E13	L2	Find an unknown coefficient within an equation of a circle given one point on the circle.
47	116 – 141	E3,E14	L2	Given the equation of a circle in general form, determine the center of the circle.
48	116 – 141	C36	L2	Find the exact value of a trigonometric expression.
49	116 – 141	E4	L3	Using tangent properties, find an unknown value related to the length of the tangent.
50	116 – 141	E15	L2	Determine the area of the sector of a circle.

**PART II: Constructed Response**—Total Value: 50%

Item	Curriculum Guide Page	Outcome	Cognitive Level	Value	Outcome Description
51	(Unit 1) 44 – 67	B1,C22,B10,A9	L2	4	Algebraically determine the exact roots of a quadratic equation.
52	44 – 67	C8,C31	L3	4	Given three points and the maximum point of a parabolic path modeled by real-world phenomena, determine the quadratic function representing the path and use it to determine a coordinate on the parabola's path.
53	44 – 67	B1,C22,C23	L3	4	Given a quadratic function that models real-world phenomena, determine the initial value and maximum value of the function related to the phenomena.

54	44 – 67	C1,B1,C22,C23	L2	4	Given a change in a rectangular area, create a quadratic equation that models the situation and use the equation to algebraically determine the change in dimensions of the area.
55	(Unit 2) 70 – 81	C16,C17,C30,C28, C18,C27	L3	4	Algebraically determine an approximation for the instantaneous rate of change in the position of an object with respect to time for a given instant.
56	(Unit 3) 84 – 113	B13,C24	L2	4	Solve a logarithmic equation using the laws of logarithms and the laws of exponents.
57	84 – 113	A5,B1,C24	L2	4	Using the laws of exponents, solve an exponential equation that can be written with like bases.
58	84 – 113	C2,C25	L3	4	Create an exponential function that models real-world phenomena and use the function to determine the time required for the situation to reach a given amount.
59	84 – 113	B13,C2,24,25	L3	4	Use the information from a graph representing exponential data to create an exponential function that models real-world phenomena and use the function to determine a value after a given amount of time.
60	(Unit 4) 116 – 141	E3,E14	L2	3	Convert the equation of an ellipse from general form to transformational form.
61	116 – 141	D1, E13, E3	L2	3	Find the equation of a circle, in standard form, given the coordinates of the center and a point on the circumference.
62	116 – 141	D1,E5,A3	L3	4	Using coordinate geometry, prove properties of a geometric shape.
63	116 – 141	E15,A3	L3	4	Determine the area of the shaded region of a circle.