

1. Analyzing and Graphing Functions (25.00%)

Learning Targets

1.1 I can identify and apply 3 or more transformations to the following parent functions: absolute value, power functions, radical, reciprocal, and greatest integer

Learning Target	Descriptor	Definition
4	Proficient	I can identify and apply 3 or more transformations to the following parent functions: absolute value, power functions, radical, reciprocal, and greatest integer
3	Developing	I can identify and apply two transformations to the following parent functions: absolute value, power functions, radical, reciprocal, and greatest integer
2	Basic	I can identify and apply one transformation to the following parent functions: absolute value, power functions, radical, reciprocal, and greatest integer
1	Minimal	I can identify the following parent functions: absolute value, power functions, radical, reciprocal, and greatest integer
0	No Evidence	No evidence shown.

1.2 I can describe and analyze a function by identifying its Domain, determine its end behavior, determining if it's even or odd, and identify the maximum number of turns it can have.

Learning Target	Descriptor	Definition
4	Proficient	I can describe and analyze a function by identifying its Domain, determine its end behavior, determining if it's even or odd, and identify the maximum number of turns it can have.
3	Developing	I can describe and analyze a function by determining if it's even or odd, determining its end behavior and identifying the maximum number of turns it can have.
2	Basic	I can describe and analyze a function by identifying its end behavior and identifying the maximum number of turns it can have.
1	Minimal	I can describe and analyze a function by identifying its maximum number of turns it can have.
0	No Evidence	No evidence shown.

1.3 I can find the zeros of any polynomial by use of any of the following: Rational Zero Test, Grouping, Difference of 2 perfect squares, Quadratic formula, or factoring a trinomial into binomials.

Learning Target	Descriptor	Definition
4	Proficient	I can find the zeros of any polynomial by use of any of the following: Rational Zero Test, Grouping, Difference of 2 perfect squares, Quadratic formula, or factoring a trinomial into binomials.
3	Developing	I can find the zeros of a 3rd degree polynomial by way of grouping.
2	Basic	I can find the zeros of quadratic by factoring or using the quadratic formula.
2	Basic	I can find the zeros of quadratic by factoring or using the quadratic formula.



Learning Target	Descriptor	Definition
1	Minimal	I can identify zeros of a quadratic function by way of factoring into binomials or using the difference of 2 perfect squares.
0	No Evidence	No evidence shown.

1.4 I can find all things necessary (intercepts, asymptotes, domain and holes) to graph complex rational functions and graph them.

Learning Target	Descriptor	Definition
4	Proficient	I can find all things necessary (intercepts, asymptotes, domain and holes) to graph complex rational functions and graph them.
3	Developing	I can find all things necessary (intercepts, asymptotes, domain and holes) to graph complex rational functions and graph them with minimal error.
2	Basic	I can find all things necessary (intercepts, asymptotes, domain and holes) to graph basic rational functions and graph them.
1	Minimal	I can find all things necessary (intercepts, asymptotes, domain and holes) to graph rational functions.
0	No Evidence	No evidence shown.

2. Logarithmic and Exponential Functions (25.00%)

Learning Targets

2.1 I can use the properties of logarithmic and exponential functions to manipulate and rewrite complex logarithmic and exponential equations.

Learning Target	Descriptor	Definition
4	Proficient	I can use the properties of logarithmic and exponential functions to manipulate and rewrite complex logarithmic and exponential equations.
3	Developing	I can use the properties of logarithmic functions to expand and condense given logarithmic expressions.
2	Basic	I can use logarithmic properties to determine if two equations are equal.
1	Minimal	I can apply a logarithm as an operation to evaluate a numeric value.
0	No Evidence	No evidence shown.

2.2 I can solve complex logarithmic and exponential equations requiring manipulation to solve. Including problems with extraneous solutions and variables on both sides of the equation.

Learning Target	Descriptor	Definition
4	Proficient	I can solve complex logarithmic and exponential equations requiring manipulation to solve. Including problems with extraneous solutions and variables on both sides of the equation.



Learning Target	Descriptor	Definition
3	Developing	I can solve complex logarithmic and exponential equations requiring manipulation to solve.
2	Basic	I can solve multi-step logarithmic and exponential equations.
1	Minimal	I can solve basic logarithmic and exponential equations.
0	No Evidence	No evidence shown.

2.3 I can solve complex real world problems requiring logarithmic and exponential equations without being given the equation.

Learning Target	Descriptor	Definition
4	Proficient	I can solve complex real world problems requiring logarithmic and exponential equations without being given the equation.
3	Developing	I can solve complex real world problems requiring logarithmic and exponential equations without being given the equation.
2	Basic	I can solve complex real world problems requiring logarithmic and exponential equations when the equation is provided.
1	Minimal	I can solve basic real world problems requiring logarithmic and exponential equations.
0	No Evidence	No evidence shown.

2.4 I can graph complex logarithmic and exponential equations with any number of translations.

Learning Target	Descriptor	Definition
4	Proficient	I can graph complex logarithmic and exponential equations with any number of translations.
3	Developing	I can graph complex logarithmic and exponential equations with 2 translations
2	Basic	I can graph basic logarithmic and exponential equations with 1 translation.
1	Minimal	I can identify and determine the difference between the graphs of $log(x)$, $ln(x)$, e^x , a^x .
0	No Evidence	No evidence shown.

3. Matrices and Polar Graphs (25.00%)

Learning Targets

3.1 I can perform matrix operations of addition, subtraction, scalar multiplication, and multiplication of two matrices.

Learn	Learning Target	Descriptor	Definition
	4	Proficient	I can perform matrix operations of addition, subtraction, scalar multiplication, and multiplication of two matrices.



Learning Target	Descriptor	Definition
3	Developing	I can perform subtraction with two matrices.
2	Basic	I can perform addition with two matrices
1	Minimal	I can perform scalar multiplication on a matrix.
0	No Evidence	No evidence shown.

3.2 I can find the inverse of a matrix, prove that two matrices are inverses, and solve a 3 x 3 or larger system by using an inverse matrix on a graphing calculator.

Learning Target	Descriptor	Definition
4	Proficient	I can find the inverse of a matrix, prove that two matrices are inverses, and solve a 3 x 3 or larger system by using an inverse matrix on a graphing calculator.
3	Developing	I can solve a 2 x 2 system by using an inverse matrix on a graphing calculator.
2	Basic	I can prove that two matrices are inverses of each other.
1	Minimal	I can use a calculator to find the inverse of a matrix.
0	No Evidence	No evidence shown.

3.3 I can write matrices to dilate, rotate, and iterate figures and use them to draw the resulting figure(s).

Learning Target	Descriptor	Definition
4	Proficient	I can write matrices to dilate, rotate, and iterate figures and use them to draw the resulting figure(s).
3	Developing	I can write a matrix which will rotate a figure
2	Basic	I can write a matrix which will dilate a figure.
1	Minimal	I can implement matrices to dilate figures.
0	No Evidence	No evidence shown.

3.4 I can show mastery of Polar Coordinates by graphing them, and converting single coordinates and equations between Polar and Cartesian.

Learning Target	Descriptor	Definition
4	Proficient	I can show mastery of Polar Coordinates by graphing them, and converting single coordinates and equations between Polar and Cartesian.
3	Developing	I can show mastery of Polar Coordinates by graphing them, and converting single coordinates and equations between Polar and Cartesian, all with minimal errors.



Learning Target	Descriptor	Definition
2	Basic	I can show a basic understanding of Polar Coordinates by graphing them and converting the coordinates.
1	Minimal	I can show a minimal understanding of Polar Coordinates by graphing them.
0	No Evidence	No evidence shown.

4. Pre-Calculus (25.00%)

Learning Targets

4.1 I can find the Difference Quotient of a function.

Learning Target	Descriptor	Definition
4	Proficient	I can find the Difference Quotient of a function.
3	Developing	I can find the Difference Quotient of a function with minimal errors.
2	Basic	I can set up a Difference Quotient of a function but not simplify it.
1	Minimal	I can solve basic combinations of functions.
0	No Evidence	No evidence shown.

4.2 I can analyze a graph and determine where it is Increasing, Decreasing, Constant. I can also locate any points of discontinuity. I can properly notate this info.

Learning Target	Descriptor	Definition
4	Proficient	I can analyze a graph and determine where it is Increasing, Decreasing, Constant. I can also locate any points of discontinuity. I can properly notate this info.
3	Developing	I can Analyze a graph and determine where it is Increasing, Decreasing, Constant. I can also locate any points of discontinuity. I can write this info with minimal errors.
2	Basic	I can determine whether a graph is increasing, decreasing or constant.
1	Minimal	I can locate points of discontinuity by looking at a graph.
0	No Evidence	No evidence shown.

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