t_Course Name	t_School Year	t_Unit Of Study
Intro to Calculus	2008/2009	Unit 1

I can translate between a number line graph, an inequality, and interval notation.

I can translate between absolute value expressions and English statements about numbers on the number line.

I can solve equations and inequalities involving absolute value by translating the equations or inequalities first into “suto math” and then into an English sentence about numbers on the number line.

I can determine the length of a segment connecting two points in the cartesian plane.

I can draw and find the equation of a circle when given the locations where the circle intersects axes, a points through which the circle passes, or the endpoints of the diameter of the circle.

I can determine where a circle intersects an axis when given the equation of a circle, completing the square when necessary.

I can determine the equation of a line tangent to a circle given the equation of the circle in various forms and the point of tangency.

I can evaluate a function given a numeric value or another function

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I can write an algebraic formula for a function described in English.

I can determine if a graph, table of values, map diagram, or equation represents a function.

I can determine the domain of a function algebraically.

I can create a function to represent a situation.

I can find the composition of two functions.

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t_Course Name	t_School Year	t_Unit Of Study
Intro to Calculus	2008/2009	Unit 2

I can create a function to represent a situation involving area, perimeter, or volume.

I can use interval notation to describe the domain and range of a function (which may or may not be continuous) given the graph of the function.

I can identify expression involving a function as distances on a graph of the function and vide versa.

I can determine if the graph of a function is symmetric about the x-axis, y-axis, or origin.

I can determine if a function is odd or even when given the equation or the graph representing the function.

I can create a graph to represent the speed of a roller coaster car as a function of how far it has moved down the track when given a picture of the roller coaster track.

I can write an English sentence to describe what happens to a value when it is used as the input to a function.

I can write an English sentence to describe what happens to an output value of a function in order to “work it backwards” through the function.

I can evaluate a function for specific values when given the graph of the function.

I can create a graph of the inverse of a function using the fact that inverse functions are reflections across the line y = x.

I can create a rule for the inverse of a function and express this rule using function notation.

I can create a “function flow diagram” to represent a function described in words or using algebra.

I can evaluate a function for specific values when given the graph of the function.

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t_Course Name	t_School Year	t_Unit Of Study
Intro to Calculus	2008/2009	Unit 4

I can predict how the graph of a function will change as the result of changes to the equation that represents the function.

I can use a graphing calculator to find the optimal solution to a problem.

I can use a graphing calculator to locate x-intercepts of a polynomial.

I can use the x-intercepts to express a polynomial as the product of irreducible factors.

I can use long division to find factors of a polynomial.

I can determine if a graph could represent a polynomial function.

I can determine a lower bound on the degree of a polynomial by examining its graph.

I can determine if the degree of a polynomial is odd or even and if the leading coefficient is positive or negative by examining its graph.

I can determine if a given value is a zero of given polynomial when given a graph or the equation of the function.

I can given polynomial equation could be represented by a particular graph.

I can create a polynomial function to match descriptions involving the degree and the roots of the polynomial.

I can find a possible equation for a polynomial function when given its graph.

I can determine if the degree of a polynomial is odd or even and if the leading coefficient is positive or negative by examining its graph.

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t_Course Name	t_School Year	t_Unit Of Study
Intro to Calculus	2008/2009	Unit 6

I can create a polynomial function to match descriptions involving the degree and the roots of the polynomial.

I can simplify expressions involving negative exponents.

I can solve equations involving exponents.

I can apply what I have learned about factoring quadratic expressions to situations involving exponents.

I can describe why a given situation would or would not represent exponential growth.

I can give an example of a situation where exponential growth would arise.

I can explain what it means for growth to be exponetial.

I can create, and use, a function to model exponential growth or decay.

I can explain the difference between exponential growth and exponential decay.

I can create, and use, a function to model exponential decay.

I can explain the meaning of the number e in terms of exponential growth

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I can explain the meaning of a logarithm in both mathematical terms and real world situations.

I can solve problems which involve logarithms by translating them into exponent problems.

I can explain the meaning of a logarithm in both mathematical terms and real world situations.

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t_Course Name	t_School Year	t_Unit Of Study
Intro to Calculus	2008/2009	Unit 7

I can justify and use the multiplication property of logarithms.

I can justify and use the division property of logarithms.

I can justify and use the power property of logarithms.
