

Math 1

Function, inverse functions, inverse of trigonometric functions Limits of functions: Limits definition, limits involving infinity, Limits techniques, Continuous function, The Derivative: Tangent lines and rates of change, Derivative definition, Techniques of differentiation, Derivative of trigonometric function, the chain rule, L'Hopital rule, Natural Logarithmic function, the natural exponential function. Applications of the derivative: Extrema of functions, the mean value theorem, the first derivative test, power series, McLaurin and Taylor series.