

Looking Ahead to Calculus Lesson Objectives

Limit of a Function Lesson

Apply the definition of a limit of a function to specific examples

Determine the limit of a function for a given value using various methods

Properties of Limits Lesson

Use the properties of limits to find limits of functions

Continuity of Functions and Limits Lesson

Use the criteria for continuity to determine if a function, f , is continuous at a

Rate of Change Lesson

Define the instantaneous rate of change of a function at a point

Find the slope of a tangent line at a given point on a curve

Write the equation of a tangent line

Define the derivative of a function, f , at $x = a$

Applications of the Derivative Lesson

Solve real-world problems involving the derivatives of functions

Find average and instantaneous velocity of an object in motion

Use the velocity of an object to find its acceleration