Definition of the derivative

After completing this section, students should be able to do the following.

- Use limits to find the slope of the tangent line at a point.

- Understand the definition of the derivative at a point.

- Compute the derivative of a function at a point.

- Estimate the slope of the tangent line graphically.

- Write the equation of the tangent line to a graph of a function at a given point.

- Recognize and distinguish between secant and tangent lines.

- Recognize the the tangent line as a local approximation for a differentiable function near a point.

Learning outcomes:
Author(s):