



## Problem Set 6: The Limit Definition of the Derivative

Find the derivative of the function using the Limit Definition of the Derivative.

1.  $f(x) = x + 3$

2.  $f(x) = x^2$

3.  $f(x) = 2x^2 - 1$

# AP Calculus AB – Unit 1



Find the slope of the function at the indicated point using the Limit Definition of the Derivative.

4.  $f(x) = \sqrt{x}$  at  $x = 4$

5.  $f(x) = \sin x$  at  $x = \pi$