

## **Chapter 1: Functions, Graphs, Limits and Continuity**

Upon successful completion of Chapter 1, the student should be able to:

Determine the values of limits (one and two-sided) for a function given by a graph or state that the limit “Does not exist”

Use algebraic methods to determine the values of limits (one and two-sided) for a function given by a formula or state that the limit “Does not exist”

State whether a given function is continuous at a point

Determine the number of times a function has a given value by using the Intermediate Value Theorem for continuous functions.

Approximate roots of functions by using the Bisection Algorithm.

State the “epsilon-delta” definition of limit

For a given epsilon, find the required “delta” graphically and algebraically (for linear and quadratic functions)