

Exam 1

Having studied Chapter 2 sections [2.6] to [2.9], here is what you should know and be able to do. Please note that not all items mentioned below will appear on the exam.

Section [2.6]

- Use any part of Theorem A and Theorem B to find the limit of a function at a number.
- Use Theorem C, The Squeeze Theorem.

Section [2.7]

- Apply theorems A and B.

Section [2.8]

- State the definitions given in this section.
- Use the definitions to find limits at $\pm\infty$.
- Use the definitions to find infinite limits and vertical and horizontal asymptotes.
- Use the definitions to prove that a given line is an oblique asymptote for a given function, for example problem #43.

Section [2.9]

- State the definitions of continuity at a point and continuity on an interval.
- Apply the definition of continuity at a point. This may include repairing a function having a removable discontinuity.
- Apply Theorems A-F.
- Use the Intermediate Value Theorem (Theorem F) to prove the existence of a number. There will not be a question like Example 8 or Problem #47.