

Topics for the First Midterm Exam

- Limits, including one-sided limits, two-sided limits, infinite limits, limits at infinity, and the limit laws.
- Continuity.
- The tangent to a curve at a point.
- The definition of the derivative function.
- Higher order derivatives (2nd, 3rd, etc.)
- Differentiability.
- Derivatives of polynomial, exponential, logarithmic, and trigonometric functions.
- Derivatives of products, quotients, and compositions of functions.

Note: You are also expected to know the basic values of trigonometric functions (e.g. $\sin(\pi/6)$, $\tan(\pi/4)$, etc.).