

REVIEW FOR TEST 1
MATH 170
SPRING 2008

The test material is from Chapter 1 and Sections 2.1 - 2.6 from the book. Besides other Precalculus prerequisites you should know:

- The laws of exponents.
- Rationalizing algebraic fractions.
- Factoring and simplifying algebraic expressions.
- Determining the domain and range of functions.
- How to sketch a graph using shifting, stretching, reflecting, expanding and so on.
- The logarithmic function, its properties and laws.
- The exponential function, its properties and laws.
- How to solve exponential equations.
- Trigonometric functions, identities and graphs.
- Composition of functions.
- How to find an equation of a secant line that passes through a pair of points from the graph of $f(x)$.
- How to find an equation of a tangent line to the graph of a function at a given point.
- What is average rate of change and instantaneous rate of change.
- The limit properties and how to use them to find limits.
- The precise definition of a limit and how to use it to verify that a given number is the limit value for a given function.
- The squeeze theorem and how to use it to find a limit.
- Standard specific limits.
- How to find one-sided limits, limits at infinity and infinite limits.
- How to find horizontal, vertical and oblique asymptotes using limits.
- Continuous functions, continuity test and continuous extension to a point.