

Math 141 Exam I Review

Appendix A

You need to know basic trig. formulas like the pythagorean theorem, the law of sines and the law of cosines, as well as SOH CAH TOA. I'll give you a copy of the unit circle in the back cover of your book so you can compute values of trig. functions without a scientific calculator.

Practice Problems: 1-10, 15,16, 20-27, 37-44.

Appendix B

You should be able factor cubics and quadratics to solve cubic and quadratic equations.

Practice Problems: 11, 12, 13, 18, 26.

1.1

Be able to use function notation and determine the domain of a function. You should be able to model functions from word problems.

Practice Problems: 9-14, 19-22, 25-30.

1.3

Be able to compute the composition of two functions and determine the domain of the composition.

Practice Problems: 31-38.

1.4

Be able to do problems similar to the problems listed below.

Practice Problems: 1-8

1.5

Be able to identify if two functions are inverses and be able to find the inverses of some functions. Be able to use inverse trig. functions to solve equations.

Practice Problems: 1, 9-15, 19-23, 38-41.

1.6

Be able to use the properties of exponential functions and logarithms to solve equations.

Practice Problems: 11-33.

2.1

Be able to identify one-sided and two-sided limits from graphs.

Practice Problems: 1-6.

2.2

Be able to evaluate limits involving algebraic functions.

Practice Problems: 3-30.

2.3

Be able to compute limits at infinity to identify the end behavior of various functions made up of algebraic, trigonometric and exponential/logarithmic functions.

Practice Problems: 7-28, 43-58.

2.5

Be able to identify all values of x which a function is discontinuous. Be able to determine if these discontinuities are removable or not. Be able to use the Intermediate Value Theorem to answer questions about continuous functions.

Practice Problems: 11-26, 29, 30, 41-45.

2.6

Be able to evaluate limits involving trig. functions and logarithms. Be able to compute limits using Theorem 2.6.4 on page 157.

Practice Problems: 17-40.