

MIDTERM 1 SYLLABUS

Midterm Exam 1: Wed, October 8th, in class

No notes, books or calculators are allowed during the exam. However, you will be allowed to write on both sides of an index card (3"x5") and bring the card with you during the exam. The card has to be handwritten by yourself.

Material covered:

Everything covered by homeworks 1,2,3,4,5.

Everything that was discussed during lecture up to and including Friday, October 3rd. This includes the handout on trigonometric functions.

List of topics, as covered in the textbook:

Section 1.1: Functions, domains and intervals, mathematical modeling

Section 1.2: Graphs of equations and functions - the entire section

Section 1.3: Power function, combinations of functions, polynomials, rational functions, algebraic functions

Section 1.4: Trigonometric functions, composition of functions

Section 2.1: Refer instead to the lecture notes on the slope of the line tangent at a point.

Section 2.2: The limit concept, The limit laws, substitution of limits

Section 2.3: More about limits, one-sided limits, existence of tangent lines, infinite limits

Section 2.4: The concept of continuity - the entire section

Section 3.1: The derivative and rates of change - the entire section