Class 1: *Wednesday, August 29*

Variables, Formulas, Functions, and Graphs

Reading: *Anton, Bivens & Davis* 1.1

Calculus was invented in the seventeenth century, a time when scientists began to describe physical phenomena mathematically. Experiments showed that certain quantities *varied* systematically as other quantities were varied and algebraic *formulas* relating these *variable* quantities were sought. The modern concept of a *function* developed from these early ideas but is both more precise and more general. A function whose output (dependent) variable changes proportionately to changes in its input (independent) variables is said to be *linear*. *Local approximation* of more general functions by linear ones is the key idea of differential calculus.

Homework 1: *Anton, Bivens & Davis* Section 1.1: 1, 2, 3, 4, 7, 8, 12, 15, 18, 19, 24

Homework #1 due 5 p.m. Thursday September 6 in Math 110 Course Box in Fowler 311.

Lab 0: *Thursday, August 30*

NO CALCULUS LAB THIS THURSDAY AUGUST 30.

Class 2: *Friday, August 31*

Calculus Concept Inventory

You will be taking a diagnostic exam to evaluate your current understanding of concepts often found in Calculus courses. This is known as the Calculus Concept Inventory, and is part of an ongoing research project to improve the effectiveness of the teaching of Calculus.