Class 1: *Friday, September 2*

Variables, Formulas, Functions, Graphs and Linear Approximation

Reading: *Smith & Minton* 0.2

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.

Quiz 1: Functions

Homework 1: *Smith & Minton* Section 0.2: 3, 71, 74, 79, 80, 100

Homework #1 due 5 p.m. Friday September 9 in Math 114 Course Box in Fowler 311.

NO LAB THIS MONDAY. TUESDAY LABS WILL MEET. You will be taking a diagnostic exam to evaluate your current understanding of concepts often found in Calculus courses. **People who have a Monday Lab time should come to any one of the Tuesday Labs (10:00am, 1:30 or 3:00) or schedule a time in one of our offices.**