MATH 151 Homework 23
Due 4/17

Read Sections 5.1 and 5.2.

Do Section 4.10 Exercises 10, 24, 30
Do Section 5.1 Exercises 5(a), 12
Do Section 5.2 Exercises 1, 5

Also, do the following exercises.

SF53. A window has the shape of a rectangle with a semicircle on top of the rectangle (so the diameter of the semicircle is the width of the rectangle). What are the dimensions of such a window with maximum area (to let the most light in) if the perimeter is restricted to be 30 ft?

SF54. Use the definition of the definite integral using right endpoints ($x_n^* = x_n$ to compute R_n) to compute

$$\int_0^1 x^2 \, dx$$

SF55. Compute these:

(a) $\displaystyle\sum_{i=1}^{100} i$

(b) $\displaystyle\sum_{i=1}^{5} 2^i$

(c) $\displaystyle\sum_{i=1}^{50} 3i^2 - 2i$