## WEEKLY HOMEWORK #9 — DUE MONDAY, MARCH 7

Textbook problems:

Section 5.1: 46. Section 5.2: 40, 47. Section 5.3: 17, 39.

Also do the following problem:

The area of a regular hexagon with side length a is  $\frac{3\sqrt{3}}{2}a^2$ . Use calculus to find the volume of a pyramid of height h = 2 whose base is a regular hexagon with side length b = 2.

*Hint:* Compare to the cone examples we have done. You may end up considering a region bounded by the lines y = x and y = 2.