

Newberger, Math 122, Fall 2005

Homework: Sections 4.5 and 4.7 *Due: Tuesday, November 8*

- I. Do Section 4.7 #20 and #22.
- II. Do page 272 #91. This is a related rates problem (from Section 3.10). Hint: You can easily find formulas for the surface area and the volume in terms of the length of one side of the cube. Use these to find a formula for the surface area of the cube in terms of its volume.
- III. Do Section 4.5 #10, 42. You will be graded on your answers to each part A-H. Make sure you address all 8 parts. Hint for #42: e^{2x} is the same as $(e^x)^2$, so for example, $e^{2x} - e^x = e^x(e^x - 1)$. Also remember that $\lim_{x \rightarrow -\infty} e^x = 0$.