

MATH 150 HW: CHAPTER 6

SPRING 2009

Write your name and class and clearly separate sections! See the syllabus.

Show work where appropriate, and use “good form and procedure,” as in class!

This is due when you take the Quiz on Chapter 6.

Graded out of 15 points.

“*” denotes “See Hint below.”

Read some of the book’s Examples for additional assistance.

6.1: 1-13 odd, 25, 27, 31 (Warning: The graphs intersect at an x -value in $[0,2]$.)

Look at 35.

6.2: 1-37 odd, 38

Check out the animations on my web site – Notes for Chapter 6!

6.3: 1*-9 odd, 13, 15, 19, 21, 23, 25, 29

Note on #1: How would you perform the integration?

Challenge Problem (not required; don’t turn in):

Use the cylindrical shells method to prove that the volume of a sphere of radius r ($r > 0$) is $\frac{4}{3}\pi r^3$.

6.4: 1, 3, 5, 9, 11, 13

Look at 22.

Read Examples 1 and 2 on pp. 329-330.

6.5: 1, 3, 7, 29*, 33*, 35, 39

Note on #29: Ignore the fact that f is not differentiable at 0.

Note on #33: Round off your answer to two decimal places. The solutions manual goes to ridiculous lengths to simplify an exact answer.

Challenge Problem (not required; don’t turn in): 37

6.6: Skip.

6.7: Skip.

6.8: 23