

Homework for Math 172, Sections 501 and 502, Fall Semester 2009

Homework: You won't need to turn in all the practice problems. Typically you'll be given a homework assignment on Thursday and turn it in at the beginning of class one week later. The homework assignments are of equal value. You may drop your lowest homework score. The score on each homework assignment will be based on the number of complete solutions you submit, the grading of selected problems, and whether or not you follow these guidelines: (1) use standard sized 8.5x11 paper and write on one side only; (2) submit the problems in order; (3) number the pages, put your name on each page and staple the pages together; no dog-ear folds. Late assignments won't be accepted unless University rules on make-up work apply.

Questions About Grading: If you have any question about the scoring of a homework assignment or exam you must contact me within two class days of the paper's return.

Due Tuesday, December 1

Section 11.1: 17, 25, 47

Section 11.2: 25, 27, 36, 43. On 25 and 27 use calculator's inverse cosine feature.

Section 11.3: 10, 21, 31

Practice Problems for Section 13.4 (don't turn in): 3, 9, 19, 21, 25, 28, 29, 31, 33, 39, 43, 51, 55

Due Thursday, November 19

Section 10.7: 5, 11, 21, 29, 32

Section 10.9: 5, 7, 11, 21, 23 (don't turn in graphs for problems 5 and 7)

Due Thursday, November 5

Review (p 647); 32, 34, 40, 44

Section 10.5: 5, 9, 12, 17, 18, 19

Due Thursday, October 29

Section 10.3: 7, 10, 13, 15, 26

Section 10.4: 7, 11, 14, 27, 32

Thursday, October 22

Section 10.1: 12, 19, 21, 24, 32

Section 10.2: 13, 19, 21, 25, 31

Thursday, October 15

Section 9.3: 5, 7, 9, 26

Section 9.4: 3, 13, 23, 19

For the next two problems assume $0 < a < b$ and rotate the circle $x^2 + y^2 = a^2$ about the line $x = -b$. The resulting surface is a doughnut shape called a torus.

Problem B: Show that the torus encloses a solid of volume $(2\pi b)(\pi a^2)$.

Problem C: Show that the surface area of the torus is $(2\pi b)(2\pi a)$.

Thursday, October 8

(Review, p. 494): 9, 13, 25, 35, 43, 68

Section 8.9: 11, 33, 41, 53

Thursday, October 1, EXAM ONE, and these problems.

Section 8.3: 7, 17, 20, 21, 35
Section 8.4: 19, 30, 43, 45, 49

Thursday, September 24
Section 8.1: 11, 21, 33, 41, 51
Section 8.2: 3, 23, 25, 49, 59

Thursday, September 17:
Section 7.3: 5, 11, 20, 25 (explain fully since answer in back), 34
Section 7.4: 3, 5, 12, 18
Section 7.5: Problem A. Let S be the solid obtained by rotating the curve $y = x - x^2$, $0 \leq x \leq 1$, about the x -axis. Find the average area of the cross sections of S by planes perpendicular to the y -axis.

Thursday, September 10:
Section 6.4: 2, 11, 27, 31
Section 7.1: 31, 35, 46 (use the solver on you calculator)
Section 7.2: 20, 51, 58.