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/m175.fa06/handouts175/t4_175_C13/review_suggestions_4.tex

- 1 This list is not in final form. Like, stuff may yet be added to it.
- 2 The final exam is

Wednesday
12/13/06
1 PM - 3 PM.

- 3 You may bring a note sheet to the test. This must be on standard $8\frac{1}{2}$ -by-11 paper in your own handwriting. This is to be turned in with your test papers.
- 4 Let \mathcal{R} be the first-quadrant region enclosed above by the graph of $y = 2 - \cosh(x)$ and below by the graph of $y = \sinh(x)$.

Check the following:

- (a) The area of \mathcal{R} is equal to $\ln(4/e^3)$.
 - (b) A solid, whose base is \mathcal{R} , has square cross sections perpendicular to the x -axis and volume $\ln(16/e^{5/2})$.
 - (c) The moment of \mathcal{R} about the x -axis is $\ln\left(\frac{4\sqrt{2}}{e\sqrt{e}}\right)$.
 - (d) The volume of the region swept out when \mathcal{R} is revolved about the y -axis is $2\pi \ln\left(\frac{2}{e}\right)^2$.
 - (e) The volume of the region swept out when \mathcal{R} is revolved about the x -axis is $\pi \ln\left(\frac{32}{e^3}\right)$.
- 5 Notes from our Test #1, 9/15/06

Problem	Allied Problems
1	6.1: 21, 23. 468: 5. 7.2: 55. 7.6: 31. 542: 73.
2a	6.2: 21, 23. 542: 75.
2b	6.3: 21 ($\ln(4/e^{3/4})$).
2c	6.3: 17, 19. 7.1: 55, 57. 7.2: 61.
3	6.4: 13, 15, 17, 19, 21, 23.
4	7.1: 7, 9, 11, 13
5 & 6	7.2: 9, 13, 21, 23, 25. 7.5: 1, 11, 37, 41, 75.
7 & 8	7.3: 21, 23, 25, 31.

6 $4(e)/470 \frac{2r^4}{L}?$

7 Notes from our Test #2, 10/13/06

Problem	Allied Problems
1	7.7: 13.
2	7.7: 1.
3	8.1: 5, 7, 11, 13. 10.2: 43, 51. 10.4: 49, 51. 10/27/06 Quiz
4	This morphs into the p -series facts.
5	7.4: 17, 19, 25.
6	8.3: 25, 29, 33(without integrals).
7a	541: 41, 43, 45.
7b	7.8: 49, 51.
8	8.2: 7, 9. 10.2: 59, 61.
9	8.3: 3, 5, 11.

8 Notes from our Test #3, 11/17/06

Problem	Allied Problems
1	11.5: 23, 25, 29. 11.9: 29.
2	
3	11.2: 15, 17, 19, 29, 31.
4	11.7: 5, 13, 15, 22, 25, 31.
5	

9 Notes from the spring-2006 final.

Problem	Allied Problems
1	4.4: 11, 21, 41. 7.8: 9, 13, 19.
2	7.3: 13, 19, 21
3	7.4: 17, 25, 37

[Click here for an answer key.](#)