Math 105 91A[1] January 26th, 19100 Worksheet 4

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1. Find a formula for $\int x^n dx$ for all values of n.

2. Using (1) and the rules of integration, solve the following integral $\int \sqrt{x^{\frac{1}{5}}} + 6x^2 + 7dx$

3. Find the $\int \sin x dx$and $\int \frac{1}{1+x^2} dx$

4. While Terra-breads manufactures their gourmet breads, they incur a fixed cost of \$3000. If the marginal cost function is

$$\frac{\partial c}{\partial q} = 30(3q^2 - 25q) + 0.2$$

   where c is the total cost of producing q loafs of bread per week, find the cost of producing 10000 loafs in one week.

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[1] **Office hours:** Monday:2:30-4:00pm, Tuesday:11:30-12:30 am, 3:30-4:30 pm, Wednesday: 10:30-11:30 am

Homework

It is imperative that you try (and write up solutions for) the homework problems ***before*** their respective due dates. You are encouraged to work together on solving the problems. To get the most gain out of doing the problems, you are encouraged to write up solutions and bring them to class on the due date. We shall try to discuss the homework for a few minutes in class. Homework will not be collected.

Homework Set 6	Jan. 31st, 2000	16.1	1,3,5,7,11,13,21,29,45
		16.2	1,3,13,15,17
Homework Set 7	Feb. 2nd, 2000	16.3	1,3,7,9,13,15,19,74,85
Homework Set 8	Feb. 7th, 2000	16.4	1,11,15,23,25,65,67
Homework Set 9	Feb. 9th, 2000	16.7	1,3,7,9,11,25,35,55,59,61,63
Homework Set 10	Feb. 21st,2000	16.8	3,15,17
		16.9	1,5,9,11,19,29,35
Homework Set 11	Feb. 24th,2000	16.10	1,3,7
Homework Set 12	Feb. 28th,2000	17.1	3,5,15,27,31,33
		17.2	1,5