

21-112 Calculus II

Announcement of Test #4

Test #4 will be administered in lecture on Friday, May 3, 2002. This is a closed-book and closed-note exam. Calculators are not permitted. This test will cover Sections 8.1 through 8.7.

The following will be provided with the exam:

Method of Least Squares: The equation of the straight line that best fits the data points $(x_1, y_1), (x_2, y_2), \dots, (x_n, y_n)$ according to the Principle of Least Squares has the equation

$$y = mx + b,$$

where

$$m = \frac{n \sum_{i=1}^n x_i y_i - \left(\sum_{i=1}^n x_i \right) \left(\sum_{i=1}^n y_i \right)}{n \sum_{i=1}^n x_i^2 - \left(\sum_{i=1}^n x_i \right)^2}$$

and

$$b = \frac{\left(\sum_{i=1}^n x_i^2 \right) \left(\sum_{i=1}^n y_i \right) - \left(\sum_{i=1}^n x_i \right) \left(\sum_{i=1}^n x_i y_i \right)}{n \sum_{i=1}^n x_i^2 - \left(\sum_{i=1}^n x_i \right)^2}.$$