Department of Mathematical Sciences   Spring 2002
Carnegie Mellon University

21-256 Multivariate Analysis and Approximation

Announcement of Test #3

Test #3 will be administered in lecture on Friday, April 12, 2002.
This is a closed-book and closed-note exam. Calculators are not
permitted.

There will be a review session during the recitation on Thursday,
April 11.

Test #3 will cover
    Walker: Sections 5.2 through 5.6;
    Stewart: Sections 14.1 and 14.7.

The following will be provided with the exam:

Least Squares Approximation: Let the data points (x_i, y_i) be
given, where $i = 1, 2, 3, \ldots, n$. The least squares line is given by

$$y = ax + b$$

with

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

and

$$b = \frac{1}{n} \sum_{i=1}^{n} y_i - \frac{a}{n} \sum_{i=1}^{n} x_i.$$