

CS 3513 - Numerical Analysis

Homework #7 - 2006.10.25

Due Date - 2006.10.30

Name: _____

Consider the best fit line $y = mx + b$ for the three points (x_1, y_1) , (x_2, y_2) and (x_2, y_3) . Here notice that the last two points have the same x -coordinate.

1. Find the equation of the line which goes through the points (x_1, y_1) and the point half-way between (x_2, y_2) and (x_2, y_3) , and write it in slope-intercept form.

2. Compute the values of m and b by the method of least squares.

3. Show that the lines from the above two problems are the same. (I.E. show they go through the two points described in problem 1 or show that their formulas are identical).