

1 Assignment 3 - Interpolation and Curve Fitting; Due to January 07, 2012

1. Following data points are given

x	y
0	3.5
1	5.0
2	7.5
3	11.5
4	17.5

Table 1: Data Points

- The suggested relation is $y = Ce^{Ax}$,
- Write a ***one complete program*** with the following capabilities;
 - Fitting with least squares method
 - Interpolating with a polynomial of order four (P_4)
 - Estimate the y-values for the x-values of 2.5 and 5.
 - Compare your estimated values from both methods.
- *Hints:* You need to linearize the formula for the least squares method. You can make use of code segments (not as a full program) of previous lab studies.