

Homework #3

ENGR0012 – Spring 2009

Due: Tuesday , January 27, 2009

Phase I

Do problem 13 Part 1 on page M-139 of the text book. Do not use the polyfit command to find the coefficients of the equation. Instead use linear algebra to solve the equations on page M-114 of the text book. Use parts of the script you wrote last semester for this. Also do not use the sum command when solving the equations on page M-114, use a loop to perform the sum. Do not use the polyval command, instead program the best fit equation to use the results from the linear algebra solution to get the values of the y coordinates of the line.

Phase II

After you get Phase I done, add an IF statement that will allow you to do problem 13 Part 2 on page M-114 of the text book. For the polynomial fit use the polyfit command to find the coefficients of the equation.

Deliverable:

Each group should turn in a directory with the data sets, the plots, the Matlab m-file.

Note: Your script must have a header section in comments that identifies:

Team members

Engineering 0012 T,H 00:00-00:00

Instructor:

Date:

Assignment number (i.e., Homework 3)

Statement of the purpose of script

Throughout the script use comments to define the purpose of every variable.

Also, you will be graded on programming style. Use whitespace, comments, indenting, etc.

Hint:

This is going to be a very long program. Layout the logic before you start, and built the program in sections. Do you have existing programs that you can reuse? Make sure each section works before you go onto the next step. If you design your script by following the numbered list in the book you might find it helpful. Have fun!!!