Rubric for students for Lab 1a

The first three plots must be in a pdf file produced by the Matlab Publish command. The fourth plot should be embedded in the Excel file you are required to provide.

Plot #1 – 20 points

* Must have force on y axis, displacement on x axis
* Must have labels for axes with units in parenthesis
* Must have spring constant with units and 4 significant digits in plot
* Must have data points indicated by symbols
* Must have best fit line.

Plot #2 – 30 points

* Must have stress on y axis, strain on x axis
* Must have labels with Greek characters and units of MPa for stress, no units for strain. The plots can have stress and strain written out or not but must have Greek characters
* Data can be plotted with small symbols or continuous line
* Best fit line must be dashed
* Must have constants with only four significant figures with K = \*\*\*.\* MPa and n = \*.\*\*\*\* listed in plot
* Program must use fit(x,y,’power1 ‘)

Plot #3 – 30 points

* Must have two plots of pressure in volts on y axis and time in seconds on x axis
  + First plot is of whole data set showing symbol at time corresponding to beginning of event.
  + Second plot must have zoomed in y axis plot showing peak locations with symbols
* Must have table correctly indicating time and amplitude corresponding to peak.

Plot #4 – 20 points

* Must have linear plot of R vs. T and log-linear plot of R vs. 1/T
* Linear plot must have data points as symbols with no line connecting them
* Log-linear plot must have data points as symbols and a best fit line with the best fit coefficients β in K and Ro in ohms shown in text on plot
* Axes must be labelled with units