**ME 120, Section 001, Homework #6 (Due 12/04/19)**

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1. Using the data provided, the points were plotted and a linear fit trendline found.

Equation for linear trendline fit: *v(t)* = 1.21t + 24.73, *R2* = 0.813

1. Using the same data set from problem one, a 2nd order polynomial was fit to the data set.

Equation for polynomial trendline fit: *v(t)* = -0.03t2 + 3.67t – 15.49, *R2* = 0.983

1. See spreadsheet (page 4)
2. From the spreadsheet (page 4), the calculated values for *m*, *b*, and *R2* are as follows:

m = 1.1231

b = 24.7336

R2 = 0.8188

These match with the values excel generated for a linear regression, which means it’s using the same methodology, as it should!

1. See attached engineering paper (page 5-6)