**BA 355: ICE 3 (Curve Fitting)**

In the ICE 3 data file, you’ll find 100 data points to which you will fit a curve.

a) Graph the data point in a scatter diagram. Is there an obvious pattern? Is it linear? Try to fit the pre-built Excel functions to it, are any of them any good?

b) You suspect that a curve that has a square root term, a linear term and a constant might fit the data pretty well. In other words, **y = a\*√x + b\*x + c**. Use solver to find the optimal parameters a, b and c that minimize the sum of the squared errors, keeping in mind that these values could be positive or negative. This will be the best-fitting curve for this data. **What are a, b and c?**

c) Draw the curve created the equation with the optimal parameters on the same scatter diagram as the original data points. Visually, does it look like a good fit?

d) Calculate the r-squared value between the original data points and the points determined by the best-fitting equation. Use =RSQ() function in Excel.

e) Re-solve for a, b and c but now force them to be integers. Solver will do this, figure out how or ask me…