Due at 11:59 pm, Monday, October 28, in the Canvas Dropbox

You will be writing two python programs.  You will put those program files and any data files needed into a single Homework7.zip file and upload that single file to Canvas.

a)  Write a python program to calculate the thermal efficiency of an Ideal Rankine Cycle.  The program will have a GUI *__extremely similar to__*:

b) Write a python program to calculate and plot the least-squares curve fit polynomial for data contained in a text file. The text file will have only one header row followed by two columns of data – x and y pairs. The program will have a GUI ***extremely similar to***:

| Qt | Least Squares Curve Fitting - QT_LeastSquares.ui* | — | ✕ |

**Input**

Filename:    Data File 1.txt

◉ Linear Fit     ◯ Quadratic Fit     ◯ Cubic Fit     ◯ All Three

         Load and Calculate                  Exit

**Output**

Equation   $3.000 *x^3 - 2.5279*x^2 + 24.3192*x - 14.3028$