Task 17-01

- Create a Python program called **identify_element.py**
- Using linear regression, write code to plot an interpolated curve based upon this table, and answer this question:

Your lab assistant distilled 50 g of a gas into a cylinder, but he left without writing down what kind of gas it is. The cylinder has a pressure regulator that adjusts a piston to keep the pressure at a constant 2.00 atm. To identify the gas, you measure the cylinder volume at several different temperatures, acquiring the data shown at the right. What is the gas?

T (°C)	V (L)
−50	11.6
0	14.0
50	16.2
100	19.4
150	21.8

- Upload your solution to the BNL QIS101 SharePoint site

Task 17-02

- Create a Python program called **euler_curve.py** that plots the following 2D parametric curve from

- Display the arc length along this curve
- Plot the point at the limit as
- Upload your solution to the BNL QIS101 SharePoint site