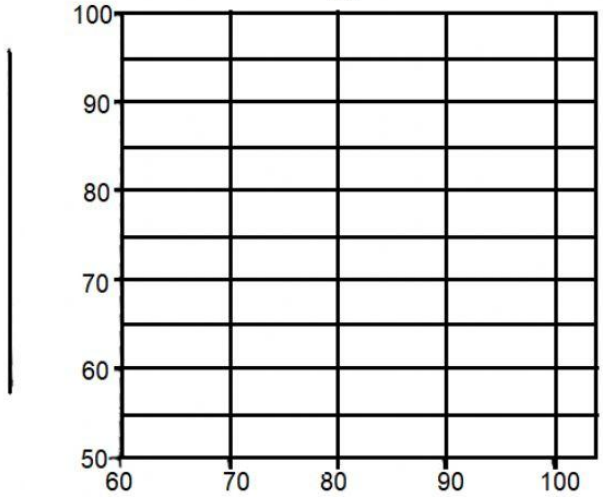
Graphing the Gas Laws

An experiment was done with a gas at constant temperature. The volume of the container the gas was in was manipulated and pressure was measured, this was done for five different volumes. You will now graph the results, which have been recorded in the data table below. Use the table below to Graph the Gas Law.

Volume (ml)	Pressure (kPa)
100	60
90	65
80	70
70	85
60	100

1. Plot volume on the horizontal axis (——)
   Plot pressure on the vertical (|) axis
2. For each pair drag and drop the point to the correct location on the graph
3. Label the each axis and title the graph.

vs.

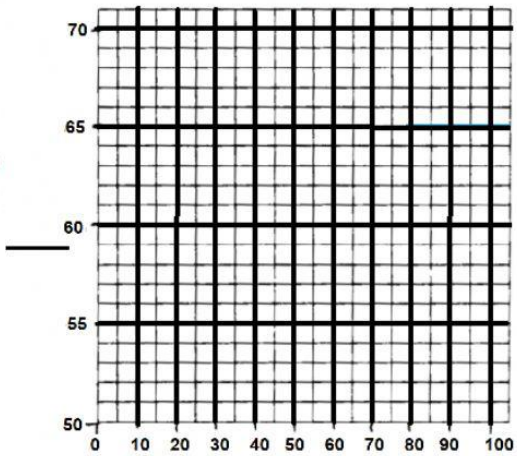


Another experiment was done, only this time the size of the container did not change, instead the temperature of the gas was changed. To graph, plot temperature on the horizontal axis, plot volume on the vertical axis. Use the table below to Graph the Gas Law.

move the red dots to the correct place on the graph.

Temperature (°C)	Volume (ml)
0	50
10	52
20	54
30	56
40	58
50	60
60	62
70	64
80	66
90	69
100	70

vs



1. Which of the two graphs shows Charles Law? experiment 1 experiment 2

2. Which of the two graphs shows Boyle's Law? experiment 1 experiment 2

The independent variable in experiment 1 is _____ and in experiment 2 it is_____

The dependent variable in experiment 1 is _____ and in experiment 2 it is _____

One point in the bottom experiment is an outlier. The point that is an outlier is Temperature ____ Volume _____

LIVEWORKSHEETS