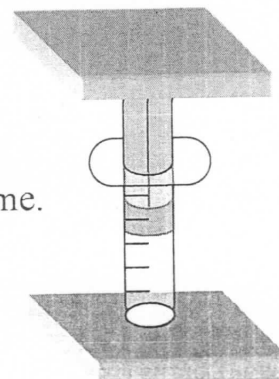


Experiment: Boyle's Law

CHM 2045L

Procedure:

1. Assemble the Boyle's Law apparatus.
2. Record the volume of air trapped in the syringe.
3. Place one book on top of the apparatus and record the new volume.
4. Repeat for two, three, and four books.
5. Record the Barometric pressure.



Calculations:

1. Calculate $1/\text{volume}$ for each volume.
2. Use Boyle's Law to calculate the pressure for 1, 2, 3, and 4 books.
3. Calculate the Boyle's law constant $PV = \text{constant}$ for each volume.
4. Calculate the mean PV .
5. Calculate the standard deviation in the PV values.

Graph:

1. Plot $1/\text{volume}$ vs. number of books on the graph paper.
2. Draw the best straight line through the data points.

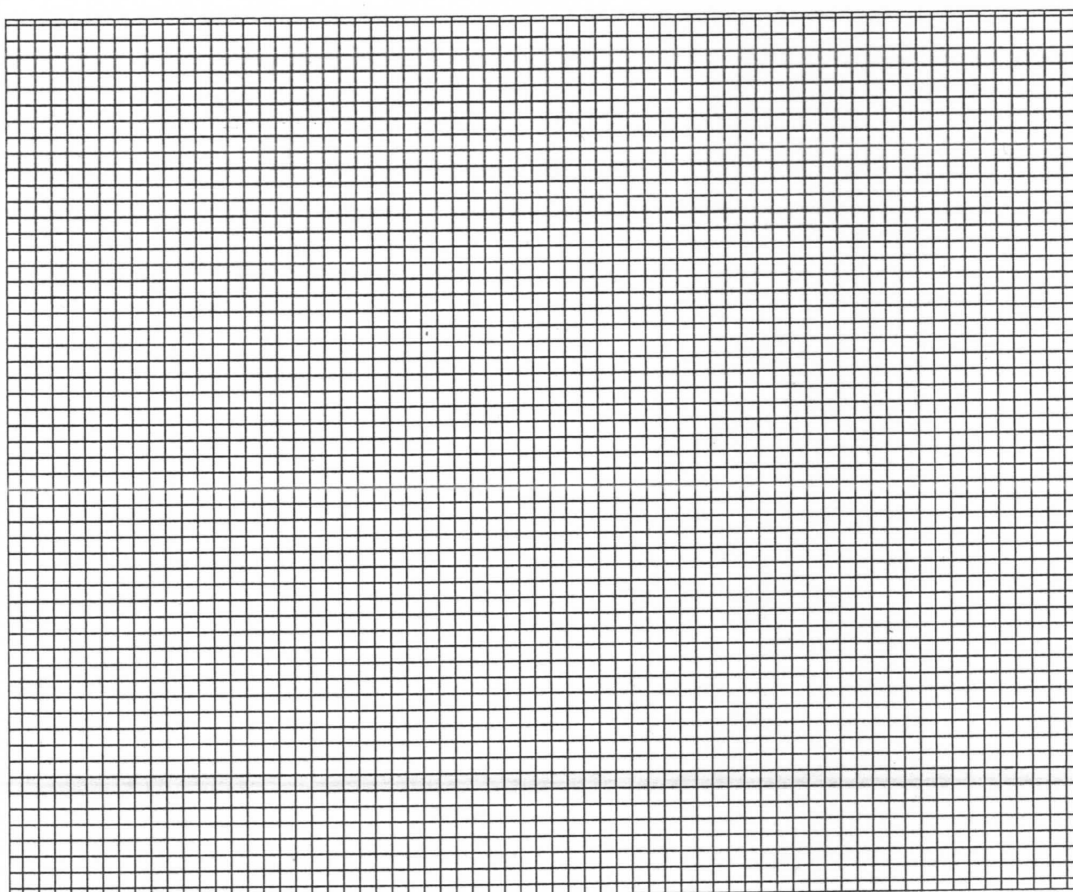
Name _____

Results

Books	Volume	$1/V$	P	PV
0	30		1.0 ATM	
1	24.9			
2	20.6			
3	17.3			
4	15.2			

Mean PV	
Std Dev PV	

$1/V$



Books