

Lab 14 Notes

Purpose:

Claim: The Molar Mass of CO_2 is _____ g/mol

← my calculated value

(*known molar mass of CO_2 is 44.0 g/mol)

4 Variables: P, V, T, M

Items/Things to collect:

Pressure: of the gas in the room using a barometer

*must convert to atm

Volume: of balloon using string

*must be in L

Temp: of room using thermometer

*must convert to K

Mass: of gas in balloon using balance

*must convert to mols using molar mass

Important formulas:

Ideal gas law (solve for n)	$n = \frac{PV}{RT}$ $R = 0.0821 \frac{\text{L} \cdot \text{atm}}{\text{mol} \cdot \text{K}}$
*need to calculate radius in order to solve for volume	$r = \frac{C}{2\pi}$ (use to then calc. volume)
Volume	$V = \frac{4}{3} \pi r^3$