

9: A gas occupies 30×10^{-3} m³ at 75 °C and 76 CmHg pressure. What would be its volume at STP?

Answer:

a) 23.5 dm³

b) 23.5 m³

c) 23.5 L-1

d) 23.5 m⁻³

10: When the value of Z > 1 this means the dominated forces are:

Answer:

a) attraction

b) van der Waal

c) repulsion

d) compression

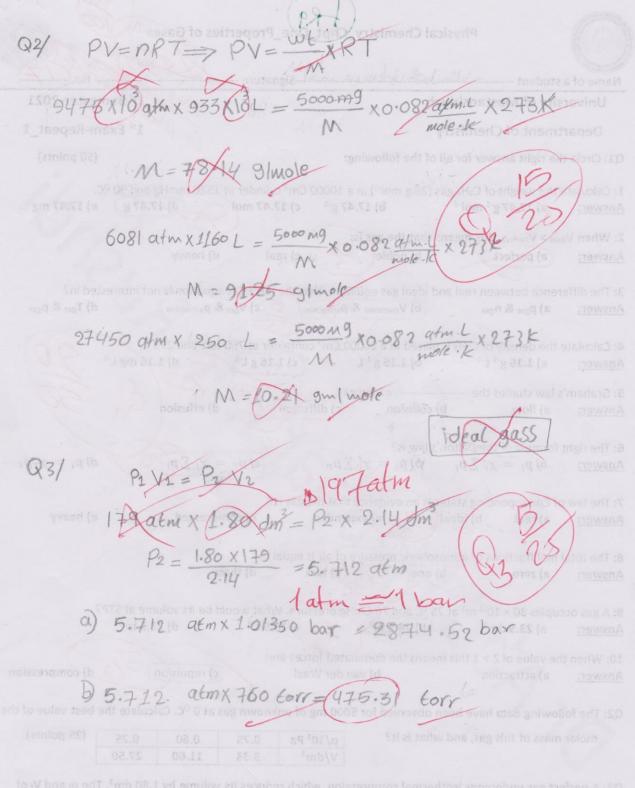
(25 points)

Q2: The following data have been observed for 5000 mg of unknown gas at 0 °C. Calculate the best value of the

molar mass of this gas, and what is it?

p/10⁵ Pa 0.75 0.60 0.25 V/dm³ 9.33 11.60 27.50

Q3: A perfect gas undergoes isothermal compression, which reduces its volume by 1.80 dm³. The p_f and V_f of the gas are 197 atm and 2.14 dm³, respectively. Calculate the p_{original} of the gas in (a) bar, (b) torr. (25 points)



33: A perfect gas undergoes isothermal compression, which reduces its volume by 1.80 dm². The prand Vroles are 197 atm and 2.14 dm², respectively. Calculate the product of the gas in (a) bar, (b) torn. (25 points)