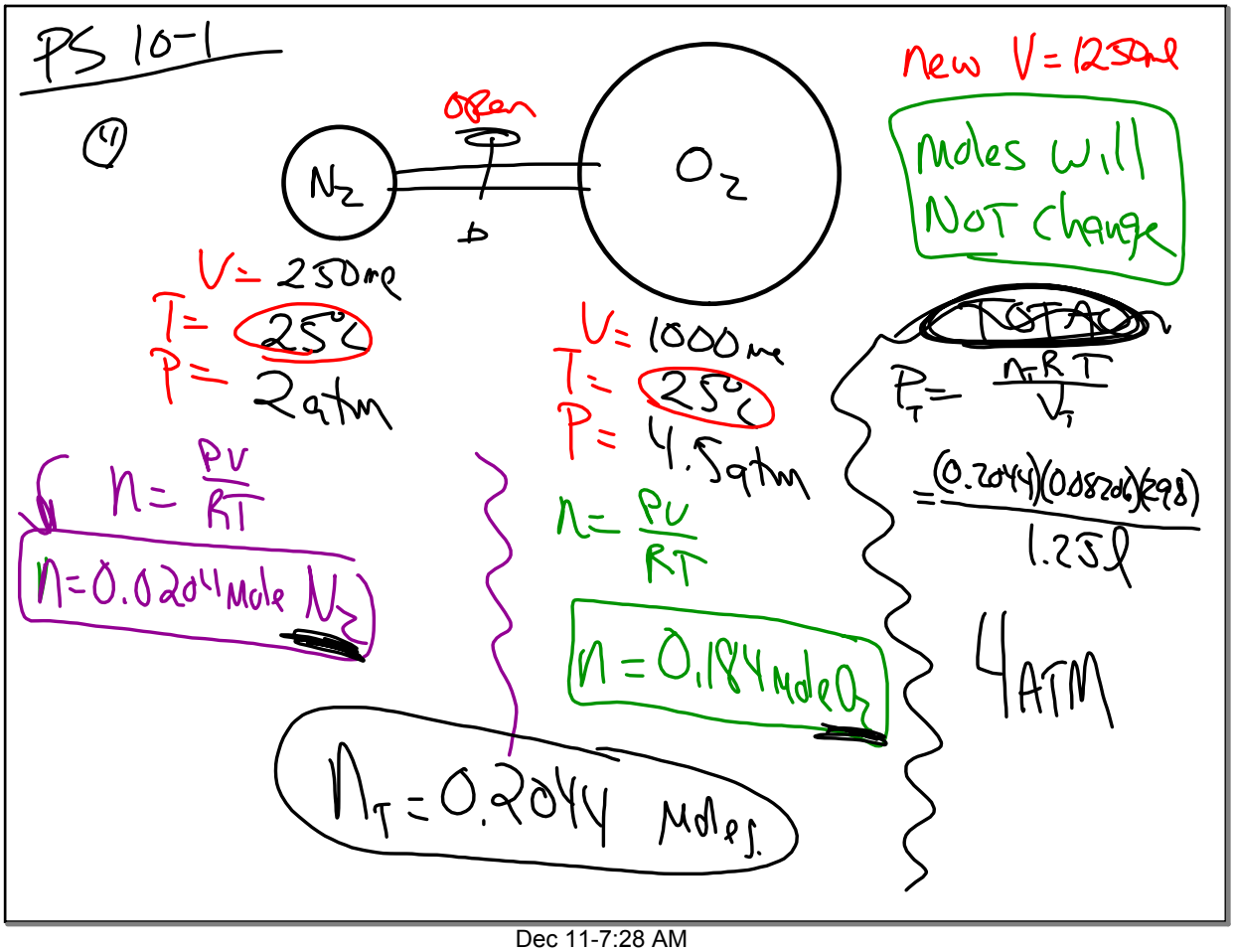
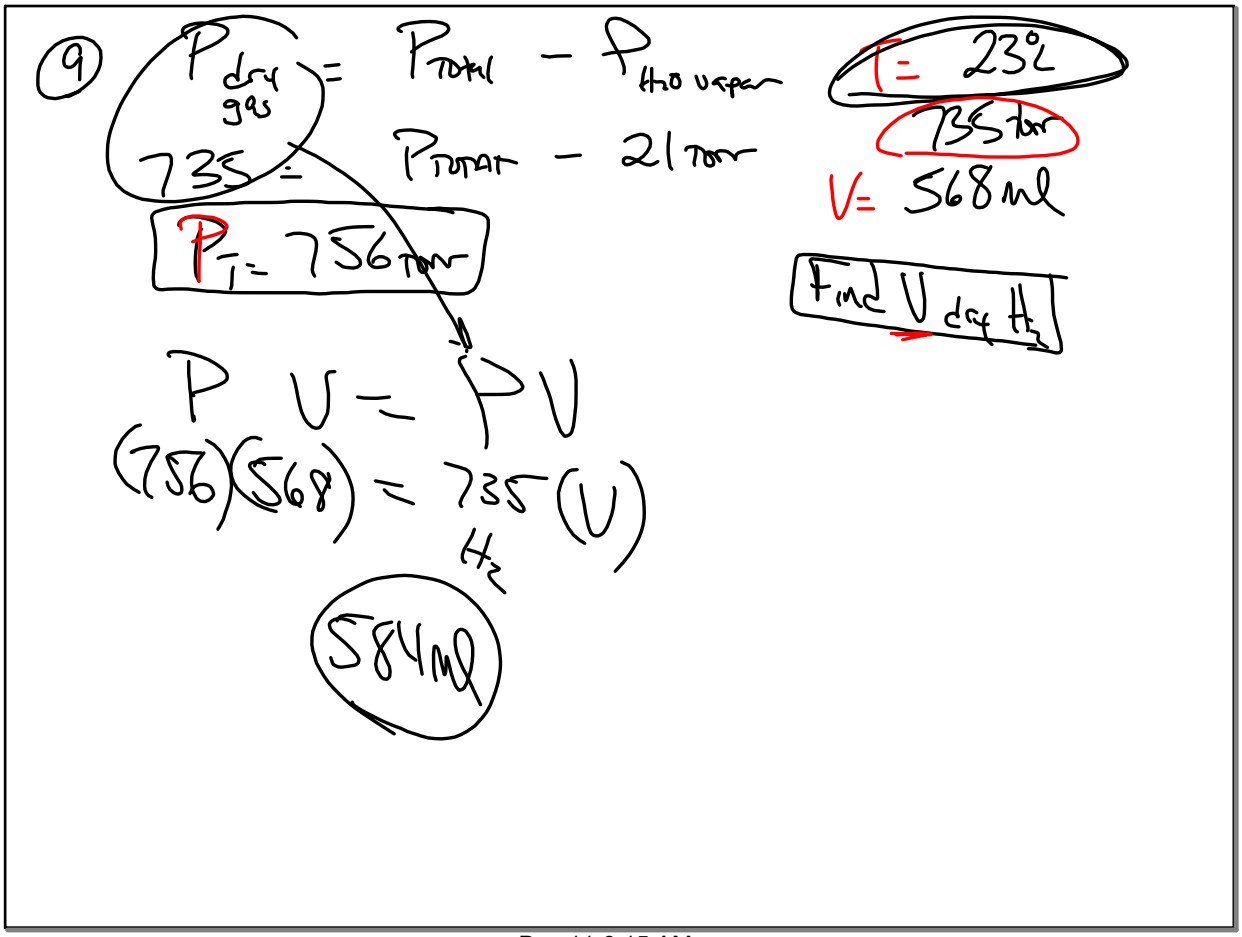


Dec 11-7:28 AM



Dec 11-8:15 AM

(17) ~~3L~~, 25°C, 76 mmHg

~~3L~~ 300°C ____ mmHg

KELVIN

Dec 11-8:27 AM

(18) $d = \frac{2.104\ g}{L}$, 303K, 1.31 atm.

Find MW → Find which gas.

$PV = nRT$

$PV = \frac{gRT}{MW}$

$\frac{g}{V} = \frac{P(MW)}{RT}$

Density

$\frac{2.104}{1} = \frac{(1.3)\,MW}{(0.0806)(303)}$

Dec 11-8:38 AM

(20) $P_T = P_{He} + P_{Ne} + P_{Ar}$

$8.4\text{atm} = 1.5 + 2.0$ (4.9)

$P_{Ar} = X_{Ar} P_T$

$\frac{4.9}{8.4} = X_{Ar} \frac{(8.4)}{8.4}$

$X_{Ar} = 0.583$

Find X_{Ar} → mole fraction → $\frac{n_{Ar}}{n_T} = 0.583$

Dec 11-8:43 AM

(21) $P_T = P_x + P_z$

$4 = 1.25 + 2.75$

$n_T = 16$ moles

Find n_x

$P_x = X_x P_T$

$1.25 = X_x \, 4$

$X_x = 0.3125$

$X_x = \frac{\text{Moles } X}{\text{Total Moles}}$

$\frac{0.3125}{1} = \frac{\text{Moles } X}{16}$

5 Moles X

Dec 11-8:49 AM

(22) He + Ne → 9 L

3 L, 5.6 atm, 25°C

4.5 L, 3.6 atm, 25°C

$PV = PV$

$(5.6)(3) = P(9)$

$P_{He} = 1.86$ atm in 9 L flask

$PV = PV$

$(3.6)(4.5) = P(9)$

$P_{Ne} = 1.8$ atm in 9 L flask

3.66 atm

Dec 11-8:55 AM

(24) $2NaN_3(s) \rightarrow 2Na(s) + 3N_2(g)$

V 40 L

T 25°C = 298

P 763 mmHg = 1.004

$n = \frac{PV}{RT} = 1.64$ mole N_2

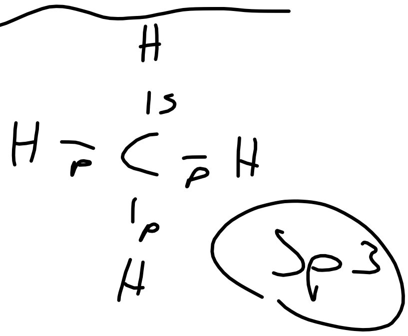
$\frac{1.64 \text{ mole } N_2}{3 \text{ mole } N_2} \cdot \frac{2 \text{ mole } NaN_3}{1 \text{ mole } NaN_3} \cdot \frac{65 \text{ g } NaN_3}{} =$

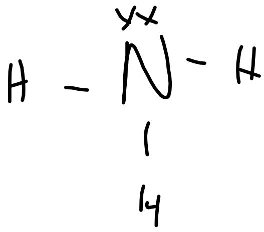
71.06 g NaN_3

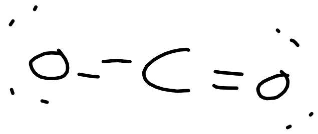
Dec 11-9:02 AM

CH_4

$4 + 4(1) = 8 - 8 = 0$





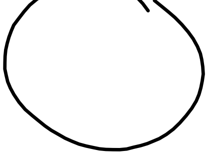


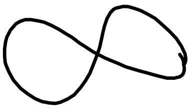
Dec 11-9:10 AM

$Fc = \text{Vale} - \left(\frac{1}{2}b + nb\right)$ ← ALL

$BO = \frac{1}{2}(B - \text{anti}B)$

shape

σ  ← on I.N. axis

π  above below I.N. axis

Dec 11-9:13 AM