

(2) 150ml, 25°C, 0.25 atm (O₂)
 0.15L, 298K

$$PV = nRT$$

$$n = \frac{PV}{RT} = \frac{0.25(0.15)}{0.08206(298)}$$

$$1.53 \times 10^{-3} \text{ Mole O}_2$$

1	32g O ₂
1 Mole O ₂	1 Mole O ₂

0.0497 g O₂

$$PV = nRT$$

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

$$g = \frac{PV(MW)}{RT}$$

$$= \frac{(0.25)(0.15)(32)}{0.08206(298)}$$

Mar 1-9:26 AM

(3) N₂ -25°C 4.75 atm Find dens. ty

$$PV = nRT$$

$$\frac{PV}{1} = \frac{gRT}{MW}$$

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

$$= \frac{(4.75)(28)}{0.08206(248)} = 5.84 \text{ g/l}$$

Mar 1-9:31 AM

diffusion

vs.

effusion

Mar 1-9:59 AM