

Exp # ?

53.77

① mass of dry flask = 53.77 Molar mass of volatile liquid

② " " " " + vapor = 53.93 (g)

③ Volume of vapor = 130 ml = 0.130 L

④ pressure of vapor =  $\frac{650 \text{ mmHg}}{760} = 0.855 \text{ atm}$   
1 atm  $\rightarrow$  760 torr  
?  $\rightarrow$  650

⑤ Temperature =  $47^\circ\text{C} = 370.15 \text{ K}$

① mass of vapor =  $53.93 - 53.77 = 0.16 \text{ (g)}$

② # moles of vapor =  $\frac{0.16}{0.0821 \times 370.15}$   
 $PV = nRT$

$n = \frac{PV}{RT} = 0.0036 \text{ mol}$

③ F. mass =  $\frac{\text{mass of vapor}}{\text{\# moles of vapor}} = \frac{0.16}{0.0036} = 44.44 \text{ g/mol}$

- mass of empty flask +  
rubber + Aluminium foil.

measured. - mass of flask +  
rubber + Aluminium  
+ The rest of Liquid  
⇒ mass of rest of  
Liquid.

$(T)$   
✓