

13.70c 0.45 mole ethylene glycol + 0.15 mole KBr
 in 150 g H₂O (K_f = 1.86 °C/m, K_b = 0.52 °C/m)

EG: $\Delta T = (K_f \times m) \times 1$
 $= [1.86 \left(\frac{0.45}{0.15} \right)]$
 $= 5.58^\circ\text{C}$

KBr: $\Delta T = (K_f \times m) \times 2$
 $\Delta T = \left[(1.86) \left(\frac{0.15}{0.15} \right) \right] \times 2$
 $\Delta T = 3.72$

$\Delta T = 9.30$

$\Delta T_f = (K_f \times m)$ (crossed out)

$1.86 \left[\frac{(0.45) + 2(0.15)}{0.15} \right]$

$\Delta T_f = 0 - 9.3 = -9.3$

$\Delta T = (K \times m) \times i$

Jan 8-7:38 AM

$\text{KBr} \rightarrow \text{K}^+ + \text{Br}^-$

1 mole 2 mole ions

$M = \frac{\text{moles}}{l} = \frac{g}{\text{MW} \cdot l}$

Jan 8-8:05 AM

13.73 $P = ?$ 44.2 mg $C_9H_8O_4$ (ASA)
 0.358 l H_2O @ $25^\circ C$

$PV = nRT$

$$P = \frac{nRT}{V} = \frac{(2.46 \times 10^{-4} \text{ mole})(0.08206)(298)}{0.358 \text{ l}} = 0.01677 \text{ atm}$$

44.2 mg $C_9H_8O_4$	1 g	1 mole	= 2.46×10^{-4} mole ASA
	1000 mg	180 g	

Jan 8-8:08 AM

13.78 2.35 g, 0.250 l solution, $P = 0.605 \text{ atm}$
 $T = 25^\circ C$

Find MW

$PV = nRT$

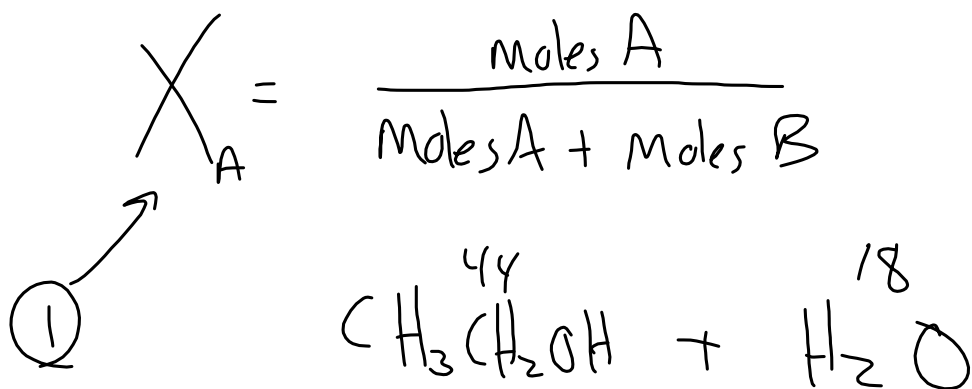
$$\frac{PV}{1} = \frac{gRT}{MW}$$

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

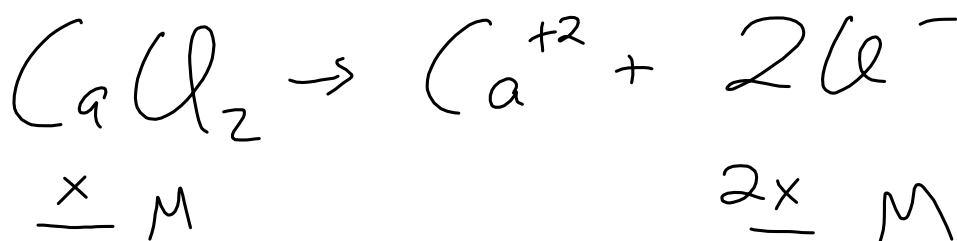
$$MW = \frac{(2.35)(0.08206)(298)}{(0.605 \text{ atm})(0.250 \text{ l})}$$

380 g/mole

Jan 8-8:14 AM



Jan 8-8:22 AM



Jan 8-8:26 AM