

Ejercicio de Molaridad

- 1) Calcular la Molaridad de una disolución de 95 gramos de ácido nítrico (HNO_3) en 25 gramos de agua

$$25 \div 1000 = 0.025$$



$$\text{Masa} = 95\text{g}$$

$$\text{Volumen} = 0.025$$

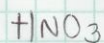
$$P_m = 63$$

$$\text{H} = 1 \times 1 = 1$$

$$\text{N} = 1 \times 14 = 14$$

$$\text{O} = 3 \times 16 = \frac{48}{63}$$

$$M = \frac{95}{(63 / 0.025)} = \frac{95}{1.575} \quad \boxed{60.317 \text{ m}}$$



$$\text{Masa} = 95\text{g}$$

$$\text{Volumen} = 0.025$$

$$\text{H} = 1 \times 1 = 1$$

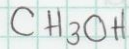
$$\text{N} = 1 \times 14 = 14$$

$$\text{O} = 3 \times 16 = \frac{48}{63}$$

$$\frac{95\text{g}}{63\text{g/mol}} = 1.507 \text{ moles}$$

$$\frac{1.507\text{ m}}{0.025} \quad \boxed{60.316 \text{ m}}$$

② Calcular la molaridad de Metanol (CH_3OH) en una disolución 15g donde el disolvente son 50 gramos de agua
 $50 \div 1000 = 0.05$



masa = 15gr

Volumen = 0.05

Pm = 32

$m = \frac{\text{Gramos}}{(\text{Pm})(\text{kg})}$

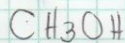
$\text{C} = 1 \times 12 = 12$

$\text{H} = 3 \times 1 = 3$

$\text{O} = 1 \times 16 = 16$

$\text{H} = 1 \times 1 = \frac{1}{32}$

$m = \frac{15}{(32)(0.05)} = \frac{15}{1.6} = 9.375 \text{ m}$



masa = 15g

Volumen = 0.05

Pm = 32

$\text{C} = 1 \times 12 = 12$

$\text{H} = 3 \times 1 = 3$

$\text{O} = 1 \times 16 = 16$

$\text{H} = 1 \times 1 = \frac{1}{32}$

$m = \frac{m}{\text{kg}}$

$\frac{15\text{g}}{32\text{g/mol}} = 0.468 \text{ mde}$

$\frac{0.468}{0.05} = 9.375 \text{ m}$

