

Problema 136: Realiza los siguientes cambios de unidades:

a) 1 g/mL (a kg/m^3) =

$$1 \text{ g/mL} = 1 \frac{\text{g}}{\text{cm}^3} \cdot \frac{1 \text{ kg}}{1000 \text{ g}} \cdot \frac{10^6 \text{ cm}^3}{1 \text{ m}^3} = 1000 \text{ kg/m}^3$$

b) 13600 kg/m^3 (a g/mL) =

$$13600 \text{ kg/m}^3 = 13600 \frac{\text{kg}}{\text{m}^3} \cdot \frac{1000 \text{ g}}{1 \text{ kg}} \cdot \frac{1 \text{ m}^3}{10^6 \text{ cm}^3} = 13,6 \text{ g/mL}$$

c) $19,28 \text{ g/cm}^3$ (a kg/m^3) =

$$19,28 \text{ g/cm}^3 = 19,28 \frac{\text{g}}{\text{cm}^3} \cdot \frac{1 \text{ kg}}{1000 \text{ g}} \cdot \frac{10^6 \text{ cm}^3}{1 \text{ m}^3} = 19280 \text{ kg/m}^3$$

d) $1,2 \text{ g/dm}^3$ (a kg/m^3) =

$$1,2 \text{ g/dm}^3 = 1,2 \frac{\text{g}}{\text{dm}^3} \cdot \frac{1 \text{ kg}}{1000 \text{ g}} \cdot \frac{10^3 \text{ dm}^3}{1 \text{ m}^3} = 1,2 \text{ kg/m}^3$$