

MODELO DE EXAMEN

Ejercicio 3:

a) 36 hl a dam^3

$$36 \text{ hl} \cdot \frac{1 \text{ Kl}(\text{m}^3)}{10 \text{ hl}} \cdot \frac{1 \text{ dam}^3}{1000 \text{ m}^3} = 0'0036 \text{ dam}^3 = \boxed{3'6 \cdot 10^{-3} \text{ dam}^3}$$

b) 38'75 cg/cl a Kg/dam^3

$$38'75 \frac{\text{cg}}{\text{cl}} \cdot \frac{1 \text{ Kg}}{10^5 \text{ cg}} \cdot \frac{10^5 \text{ cl}}{1 \text{ Kl}(\text{m}^3)} \cdot \frac{1000 \text{ m}^3}{1 \text{ dam}^3} = 38750 \text{ Kg}/\text{dam}^3 = \boxed{3'88 \cdot 10^4 \text{ Kg}/\text{dam}^3}$$

c) 6720 km^2/h a cm^2/min

$$6720 \frac{\text{km}^2}{\text{h}} \cdot \frac{10^8 \text{ cm}^2}{1 \text{ km}^2} \cdot \frac{1 \text{ h}}{60 \text{ min}} = \boxed{1'12 \cdot 10^{10} \text{ cm}^2/\text{min}}$$

Ejercicio 6

$$P \cdot V = nRT$$

← Temperatura $25'1 \text{ K}$ ^{3 c.s.}

← Valor constante $0'082$ _{2 c.s.}

Presión $\frac{11'2760 \text{ atm}}{6 \text{ c.s.}}$

Volumen $V = \frac{123'4 \text{ L}}{4 \text{ c.s.}}$

Para calcular el número de moles despejamos n:

$$n = \frac{P \cdot V}{0'082 \cdot T} = \frac{11'2760 \text{ atm} \cdot 123'4 \text{ L}}{0'082 \cdot 25'1 \text{ K}} = 680 \text{ moles}$$

↑
(676'06)
Redondeamos a 2 c.s.