

# CAMBIO DE UNIDADES

Convierte en unidades del sistema internacional (SI) y expresa el resultado en notación científica:

a)  $S = 74,5 \text{ dam}^2$

$$v = 74,5 \frac{\cancel{\text{dam}^2}}{1 \cancel{\text{dam}^2}} \times \frac{10^2 \text{ m}^2}{1 \cancel{\text{dam}^2}} = 7450 \text{ m}^2 = 7,450 \times 10^3 \text{ m}^2$$

b)  $V = 823 \text{ mm}^3$

$$V = 823 \frac{\cancel{\text{mm}^3}}{10^9 \cancel{\text{mm}^3}} \times \frac{1 \text{ m}^3}{10^9 \cancel{\text{mm}^3}} = 823 \times 10^{-9} \text{ m}^3 = 8,23 \times 10^{-7} \text{ m}^3$$

c)  $\rho_{\text{Fe}} = 7,8 \text{ g/cm}^3$

$$\rho_{\text{Fe}} = 7,8 \frac{\cancel{\text{g}}}{\cancel{\text{cm}^3}} \times \frac{1 \text{ kg}}{1000 \cancel{\text{g}}} \times \frac{10^6 \cancel{\text{cm}^3}}{1 \text{ m}^3} = 7800 \frac{\text{kg}}{\text{m}^3} = 7,8 \times 10^3 \frac{\text{kg}}{\text{m}^3}$$

d)  $P = 1,75 \text{ kg/cm}^2$

$$P = 1,75 \frac{\cancel{\text{kg}}}{\cancel{\text{cm}^2}} \times \frac{9,8 \text{ N}}{1 \cancel{\text{kg}}} \times \frac{10^4 \cancel{\text{cm}^2}}{1 \text{ m}^2} = 171500 \frac{\text{N}}{\text{m}^2} = 171500 \text{ Pa} = 1,715 \times 10^5 \text{ Pa}$$

e)  $v = 15 \text{ km/min}$

$$v = 15 \frac{\cancel{\text{km}}}{\cancel{\text{min}}} \times \frac{10^3 \text{ m}}{1 \cancel{\text{km}}} \times \frac{1 \cancel{\text{min}}}{60 \text{ s}} = 250 \frac{\text{m}}{\text{s}} = 2,50 \times 10^2 \frac{\text{m}}{\text{s}}$$

f)  $V = 70 \text{ cm}^3$

$$V = 70 \frac{\cancel{\text{cm}^3}}{10^6 \cancel{\text{cm}^3}} \times \frac{1 \text{ m}^3}{10^6 \cancel{\text{cm}^3}} = 70 \times 10^{-6} \text{ m}^3 = 7,0 \times 10^{-5} \text{ m}^3$$

g)  $\rho = 4,7 \text{ g/ml}$

$$V = 4,7 \frac{\cancel{\text{g}}}{\cancel{\text{ml}}} \times \frac{1 \text{ kg}}{10^3 \cancel{\text{g}}} \times \frac{1 \cancel{\text{ml}}}{1 \cancel{\text{cm}^3}} \times \frac{10^6 \cancel{\text{cm}^3}}{1 \text{ m}^3} = 4700 \frac{\text{kg}}{\text{m}^3} = 4,7 \times 10^3 \frac{\text{kg}}{\text{m}^3}$$

h)  $S = 127 \text{ cm}^2$

$$S = 127 \frac{\cancel{\text{cm}^2}}{10^4 \cancel{\text{cm}^2}} \times \frac{1 \text{ m}^2}{10^4 \cancel{\text{cm}^2}} = 127 \times 10^{-4} \text{ m}^2 = 1,27 \times 10^{-2} \text{ m}^2$$