

1. PRETVARJANJE MERSKIH ENOT

$$26 \text{ dm} = 2,6 \text{ m}$$

$$0,23 \text{ t} = 230 \text{ kg}$$

$$150 \text{ ml} = 150 \text{ cm}^3$$

$$3000 \text{ cm} = 30 \text{ m}$$

$$700 \text{ g} = 70 \text{ dag}$$

$$300 \text{ cm}^3 = 0,3 \text{ dm}^3$$

$$1,7 \text{ km} = 1700 \text{ m}$$

$$643 \text{ g} = 0,643 \text{ kg}$$

$$0,8 \text{ m}^2 = 80 \text{ dm}^2$$

$$0,45 \text{ km} = 450 \text{ m}$$

$$1,08 \text{ t} = 1080 \text{ kg}$$

$$17400 \text{ cm}^2 = 1,74 \text{ m}^2$$

$$124 \text{ dag} = 1,24 \text{ kg}$$

$$5 \text{ dm}^3 = 5000 \text{ cm}^3$$

$$6,45 \text{ dm}^2 = 645 \text{ cm}^2$$

$$0,4 \text{ dag} = 4 \text{ g}$$

$$3,29 \text{ m}^3 = 3290 \text{ dm}^3$$

$$5,4 \text{ cm}^2 = 540 \text{ mm}^2$$

$$120 \text{ cm}^3 = 0,12 \text{ dm}^3$$

$$2,7 \frac{\text{kg}}{\text{m}^3} = 2700 \frac{\text{kg}}{\text{dm}^3}$$

$$54 \text{ dl} = 5,4 \text{ l}$$

$$2,5 \frac{\text{kg}}{\text{dm}^3} = 2,5 \frac{\text{g}}{\text{cm}^3}$$

$$32,5 \text{ l} = 32,5 \text{ dm}^3$$

$$900 \frac{\text{kg}}{\text{dm}^3} = 0,9 \frac{\text{kg}}{\text{m}^3}$$

$$5,6 \text{ cm}^3 = 5,6 \text{ ml}$$

$$130 \frac{\text{g}}{\text{dm}^3} = 0,13 \frac{\text{kg}}{\text{dm}^3}$$

$$1800 \frac{\text{kg}}{\text{m}^3} = 1,8 \frac{\text{kg}}{\text{dm}^3}$$

$$90 \frac{\text{N}}{\text{m}^3} = 0,09 \frac{\text{N}}{\text{dm}^3}$$

$$5 \frac{\text{N}}{\text{dm}^3} = 5000 \frac{\text{N}}{\text{m}^3}$$

2. V stekleničko, ki tehta 100 g, nalijemo 50 ml živega srebra. Gostota živega srebra je $13,6 \frac{\text{kg}}{\text{dm}^3}$. Koliko tehta steklenička z živim srebrom?

$$m_s = 100 \text{ g}$$

$$m = \rho \cdot V$$

$$V = 50 \text{ ml} = 50 \text{ cm}^3 = 0,05 \text{ dm}^3$$

$$m = 13,6 \frac{\text{kg}}{\text{dm}^3} \cdot 0,05 \text{ dm}^3$$

$$\rho = 13,6 \frac{\text{kg}}{\text{dm}^3}$$

$$m = 0,68 \text{ kg} = 680 \text{ g}$$

$$100 \text{ g} + 680 \text{ g} = 780 \text{ g} = 0,78 \text{ kg}$$

Steklenička z živim srebrom tehta 0,78 kg.

3. Gal tehta 60 kg in ima eno stopalo veliko 120 cm^2 . Stoji na obeh nogah. Kolikšen je tlak v tleh pod obema stopaloma?

$$m = 60 \text{ kg} \rightarrow F_g = 600 \text{ N}$$

$$S = 2 \cdot 120 \text{ cm}^2 = 240 \text{ cm}^2 = 0,024 \text{ m}^2$$

$$p = \frac{F}{S}$$

$$p = \frac{600 \text{ N}}{0,024 \text{ m}^2}$$

$$p = 25000 \frac{\text{N}}{\text{m}^2} = 25\,000 \text{ Pa}$$

Tlak po stopaloma je $25\,000 \text{ Pa} = 25 \text{ kPa}$.

4. Izračunaj gostoto kocke s podatki:

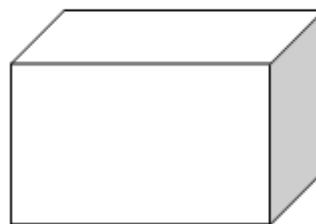
$$m = 4 \text{ kg}$$

$$\rho = \frac{m}{V}$$

$$\underline{V = 2 \text{ l}} = 2 \text{ dm}^3$$

$$\rho = \frac{4 \text{ kg}}{2 \text{ dm}^3}$$

$$\rho = 2 \frac{\text{kg}}{\text{dm}^3} = 2000 \frac{\text{kg}}{\text{m}^3}$$



5. Skala se dotika podlage na ploskvi, veliki $0,4 \text{ m}^2$. Tlak pod skalo je 20 kPa . S kolikšno silo deluje skala na podlago?

$$S = 0,4 \text{ m}^2$$

$$F = p \cdot S$$

$$p = 20 \text{ kPa} = 20000 \frac{\text{N}}{\text{m}^2}$$

$$F = 20000 \frac{\text{N}}{\text{m}^2} \cdot 0,4 \text{ m}^2$$

$$F = 8000 \text{ N} = 8 \text{ kN}$$

Skala deluje na tla s silo 8 kN .

6. Določi maso bukovega hloda s prostornino $0,8 \text{ m}^3$, če je gostota bukovine 700 kg/m^3 .

$$V = 0,8 \text{ m}^3$$

$$m = \rho \cdot V$$

$$\rho = 700 \frac{\text{kg}}{\text{m}^3}$$

$$m = 700 \frac{\text{kg}}{\text{m}^3} \cdot 0,8 \text{ m}^3$$

$$m = 560 \text{ kg}$$

7. V kolikšno posodo bomo lahko nalili 72 kg nafte, če je njena gostota 800 kg/m^3 ?

$$m = 72 \text{ kg}$$

$$V = \frac{m}{\rho}$$

$$\rho = 800 \frac{\text{kg}}{\text{m}^3}$$

$$V = \frac{72 \text{ kg} \cdot \text{m}^3}{800 \text{ kg}}$$

V posodo za 90 litrov.

$$V = 0,09 \text{ m}^3 = 90 \text{ dm}^3 = 90 \text{ l}$$