

**Naloge:**

1. V cisterni je 600 l olja z maso 540 kg. Kolikšni sta gostota in specifična teža olja?

$$V = 600 \text{ l} = 600 \text{ dm}^3 \quad \rho = \frac{m}{V} \quad \tau = \frac{F_g}{V}$$

$$m = 540 \text{ kg} \quad \rho = \frac{540 \text{ kg}}{600 \text{ dm}^3} \quad \tau = \frac{5400 \text{ N}}{600 \text{ dm}^3}$$

$$\rho = 0,9 \frac{\text{kg}}{\text{dm}^3} = 900 \frac{\text{kg}}{\text{m}^3} \quad \tau = 9 \frac{\text{N}}{\text{dm}^3} = 9000 \frac{\text{N}}{\text{m}^3}$$

2. Železen žebelj ima maso 3 g in gostota železa je  $7,8 \text{ kg/dm}^3$ . Kolikšna je prostornina žeblija?

$$m = 3 \text{ g} \quad \rho = \frac{m}{V}$$

$$\rho = 7,8 \frac{\text{kg}}{\text{dm}^3} \quad V = \frac{m}{\rho} = \frac{0,003 \text{ kg}}{7,8 \text{ kg/dm}^3} = 0,00038 \text{ dm}^3 = 0,38 \text{ cm}^3$$

$$V =$$

3. V tanku avtomobila je 35 kg bencina s specifično težo  $7000 \text{ N/m}^3$ .

- a) Izračunaj prostornino bencina v tanku.  
b) Kakšna je gostota bencina?

$$m = 35 \text{ kg} \quad \tau = \frac{F_g}{V} \quad \rho = \tau : 10$$

$$\tau = 7000 \frac{\text{N}}{\text{m}^3} \quad V = \frac{F_g}{\tau} \quad \rho = \frac{7000 \text{ kg}}{\text{m}^3}$$

$$V =$$

$$\rho =$$

$$V = 0,05 \text{ m}^3 = 50 \text{ dm}^3 = 50 \text{ l}$$

4. Imamo bakreno kroglo z maso 1,95 kg in gostoto je  $8900 \text{ kg/m}^3$ .

- a) Kolikšna je prostornina krogle?  
b) Kolikšna je teža enako velike krogle iz železa? \*

\*Podatke za gostoto železa poišči v tabeli v DZ na platnici.

$$m = 1,95 \text{ kg} \quad V = \frac{m}{\rho} = \frac{1,95 \text{ kg}}{8900 \frac{\text{kg}}{\text{m}^3}} = 0,00022 \text{ m}^3 = 0,22 \text{ dm}^3 = 220 \text{ cm}^3$$

$$\rho_{\text{Cu}} = 8900 \frac{\text{kg}}{\text{m}^3} \quad \rho_{\text{Fe}} = 7800 \frac{\text{kg}}{\text{m}^3} \Rightarrow \tau = 78000 \frac{\text{N}}{\text{m}^3}$$

$$V =$$

$$F_g = \tau \cdot V = 78000 \frac{\text{N}}{\text{m}^3} \cdot 0,00022 \text{ m}^3 = 17,16 \text{ N}$$

$$F_g =$$