

U št 121

Gostota in specifična teža

1.  $m = 1500 \text{ kg}$   
 $V = 3 \text{ m}^3$

$\rho = ?$   
 $\rho = \frac{m}{V}$   
 $\rho = \frac{1500 \text{ kg}}{3 \text{ m}^3}$   
 $\rho = \underline{\underline{500 \frac{\text{kg}}{\text{m}^3}}}$

$m = 5400 \text{ kg}$   
 $V = 2 \text{ m}^3$

$\rho = ?$   
 $\rho = \frac{m}{V}$   
 $\rho = \frac{5400 \text{ kg}}{2 \text{ m}^3}$   
 $\rho = \underline{\underline{2700 \frac{\text{kg}}{\text{m}^3}}}$

$m = 7800 \text{ kg}$   
 $V = 1 \text{ m}^3$

$\Downarrow$  sklepam  
 $\rho = \underline{\underline{7800 \frac{\text{kg}}{\text{m}^3}}}$

2.  $V = 1 \text{ dm}^3$

$\rho_{\text{Al}} = 11400 \frac{\text{kg}}{\text{m}^3} = 11,4 \frac{\text{kg}}{\text{dm}^3}$

$\Downarrow$  sklepam, kaj pove podatek za gostoto:  
 $m = \underline{\underline{11,4 \text{ kg}}}$

$V = 1 \text{ dm}^3$

$\rho_{\text{Hg}} = 13590 \frac{\text{kg}}{\text{m}^3} = 13,59 \frac{\text{kg}}{\text{dm}^3}$

$\Downarrow$  sklepam  
 $m = \underline{\underline{13,59 \text{ kg}}}$

$V = 1 \text{ dm}^3$

$\rho_{\text{H}_2\text{O}} = 1000 \frac{\text{kg}}{\text{m}^3} = 1 \frac{\text{kg}}{\text{dm}^3}$

$\Downarrow$  sklepam  
 $m = \underline{\underline{1 \text{ kg}}}$

3.  $V_2 = 200 \text{ cm}^3$   
 $m = 170 \text{ g}$   
 $V_k = 215 \text{ cm}^3$   


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 $\rho = ?$

$\Delta V = V_k - V_2$   
 $\Delta V = 215 \text{ cm}^3 - 200 \text{ cm}^3$   
 $\Delta V = \underline{\underline{15 \text{ cm}^3}}$

$\rho = \frac{m}{V}$   
 $\rho = \frac{170 \text{ g}}{15 \text{ cm}^3}$   
 $\rho = 11,33 \frac{\text{g}}{\text{cm}^3}$   
 $\rho = 11,33 \frac{\text{kg}}{\text{dm}^3}$   
 $\rho = \underline{\underline{11330 \frac{\text{kg}}{\text{m}^3}}}$

Kroglica je iz svineca.

TABELA GOSTOT  $\rightarrow$  SVINEC

4.  $a = 5 \text{ m}$   
 $b = 4 \text{ m}$   
 $c = 2,2 \text{ m}$   


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$V = a \cdot b \cdot c$   
 $V = 5 \text{ m} \cdot 4 \text{ m} \cdot 2,2 \text{ m}$   
 $V = \underline{\underline{44 \text{ m}^3}}$

$\rho_{\text{zrak}} = 1,3 \frac{\text{kg}}{\text{m}^3}$

$m = \rho \cdot V$   
 $m = 1,3 \frac{\text{kg}}{\text{m}^3} \cdot 44 \text{ m}^3$   
 $m = \underline{\underline{57,2 \text{ kg}}}$

-10% polnjenje z. nenceni

90% zraka

$\frac{0,9 \cdot 57,2 \text{ kg}}{51,48 \text{ kg}}$  zraka v ucilnici

5.  $V = 10 \text{ m}^3$

$\rho_{\text{vode}} = 1000 \frac{\text{kg}}{\text{m}^3}$

$m = \rho \cdot V$   
 ALI

$\Rightarrow$  sklepam  $m = 10000 \text{ kg} = \underline{\underline{10 \text{ t}}}$

Masa vode v cisterni je 10 ton.

6.  $m = 5 \text{ t} = 5000 \text{ kg}$

$G = 16200 \frac{\text{N}}{\text{m}^3} \rightarrow \rho = 1620 \frac{\text{kg}}{\text{m}^3}$

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

$V = \frac{5000 \text{ kg} \cdot \text{m}^3}{1620 \text{ kg}}$

$V = ?$

Kup gramoza ravzame nekaj  $\text{m}^3$  kot  $3 \text{ m}^3$  prostora.  $V = \underline{\underline{3,09 \text{ m}^3}}$