ΛΥΣΕΙΣ ΦΥΣΙΚΗΣ 2 Β' ΓΥΜΝΑΣΙΟΥ 27/4/2020

1. α. $\rho = \frac{m}{V} \rightsquigarrow 0,9 = \frac{m}{2000} \rightsquigarrow m = 0,9 \cdot 2000 \rightsquigarrow m = 1800g$

$(V = 2L = 2000cm^3)$

β. $V = 1L = 1000cm^3$ $\rho = \frac{m}{V} = \frac{1800}{1000} = 1,8\ g/cm^3$

$m = 1800g$

2. $\rho_x = \frac{m_x}{V_x} \rightsquigarrow 8,9 = \frac{m_x}{40} \rightsquigarrow m_x = 8,9 \cdot 40 \rightsquigarrow m_x = 356g$

$\rho_\Sigma = \frac{m_\Sigma}{V_\Sigma} \rightsquigarrow 7,8 = \frac{m_\Sigma}{60} \rightsquigarrow m_\Sigma = 7,8 \cdot 60 \rightsquigarrow m_\Sigma = 468g$

ΘΑ ΓΕΙΡΕΙ ΠΡΟΣ ΤΟ ΣΙΔΗΡΟ

3. $\rho = \frac{m}{V} \rightsquigarrow 2,5 = \frac{20}{V} \rightsquigarrow V = \frac{20}{2,5} \rightsquigarrow V = 8\ cm^3$

άλλα $V_{ΚΥΒΟΥ} = \alpha^3 = 8cm^3$ άρα μήκος = πλάτος = ύψος = 2cm

4. $\rho = \frac{m}{V} \rightsquigarrow 2 = \frac{128}{V} \rightsquigarrow V = \frac{128}{2} \rightsquigarrow V = 64cm^3$

άλλα $V_{ορθ.παρ.} = \alpha \cdot \beta \cdot \gamma = 64cm^3 \rightsquigarrow 8 \cdot 4 \cdot \gamma = 64 \rightsquigarrow$ $\gamma = 64 \rightsquigarrow$

$\rightsquigarrow \gamma = 64 : 32 \rightsquigarrow \gamma = 2cm$

5. $V_K = \alpha^3 = (20\ cm)^3 = 8000\ cm^3$

$\rho = \frac{m}{V} \rightsquigarrow \rho = \frac{150.000}{8000} \rightsquigarrow \rho = 18,75\ g/cm^3$

Άρα ο κύβος είναι κούφιος