9. Η πυκνότητα του λαδιού είναι $\rho_\lambda = 0,6\ g/cm^3$. Να μετατρέψετε την πυκνότητα αυτή σε

α) Kg/m^3.

β) g/L

γ) Kg/L.

δ) g/mL.

Πυκνότητα

$$\rho = \frac{m}{V} = \frac{Kg}{m^3}$$

$\rho = 0,6\ g/cm^3$

α) $1\ Kg = 1000\ gr$ ή $1\ gr = \frac{1}{1000}\ Kg = 0,001\ Kg$

$1\ m^3 = 1000000\ cm^3$ ή $1\ cm^3 = \frac{1}{1000000}\ m^3 = 0,000001\ m^3$

$\rho = 0,6\ \frac{gr}{cm^3} = 0,6\ \frac{\frac{1}{1000}\ Kg}{\frac{1}{1000000}\ m^3} = 0,6\ \frac{1}{\frac{1}{1000}}\ Kg/m^3 = 0,6 \cdot 1000\ Kg/m^3 =$

$= 600\ Kg/m^3$

β) $0,6\ \frac{gr}{cm^3} \longrightarrow gr/L$

$1\ L = 1000\ cm^3$

$1\ cm^3 = \frac{1}{1000}\ L$

$0,6\ \frac{1\ gr}{1\ cm^3} = 0,6\ \frac{1\ gr}{\frac{1}{1000}\ L} = 0,6\ \frac{1}{\frac{1}{1000}}\ gr/L = 0,6 \cdot 1000\ gr/L = 600\ gr/L$

$0,6\ \frac{1\ gr}{1\ cm^3} = 0,6\ \frac{1\ gr}{0,001\ L} = \frac{0,6}{0,001}\ gr/L = \frac{600}{1}\ gr/L = 600\ gr/L$

ي) $0,6\ \frac{gr}{cm^3} =$ ---------- $\frac{Kg}{L}$

$0,6\ \frac{1gr}{1cm^3} = 0,6\ \frac{0,001\ Kg}{0,001\ L} = 0,6\ \frac{Kg}{L}$

ه) $0,6\ \frac{1gr}{1cm^3}$ ⟶ $1\ gr$ / $1\ ml$

$1L = 1000\ cm^3$

$1ml = 1\ cm^3$

$0,6\ gr/cm^3 = 0,6\ gr/ml$