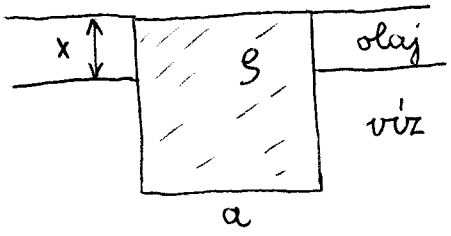
7.)

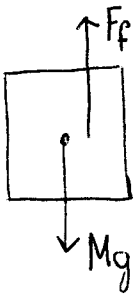
$a = 30\,cm \quad \varrho = 0{,}9\,g/cm^3 \quad \varrho_v = 1\,g/cm^3 \quad \varrho_o = 0{,}7\,g/cm^3 \quad x = ?$



felhajtó erő: $\boxed{F_f = m_f \cdot g = \varrho_f \cdot V_f \cdot g}$

$\boxed{\vec{a} = \frac{\vec{F}_e}{m}}$

Egyensúly: $\vec{a} = 0 \quad \vec{F}_e = 0$



$F_f = Mg$

$\varrho_o a^2 x g + \varrho_v a^2 (a - x) g = a^3 \varrho g$

$\Downarrow$

x