

A square object (0.5 m x 0.5 m x 0.35 m) is floating on water, with half of it's volume submerged. What is the buoyant force acting on the block?

$$F_{\text{buoyancy}} = \rho g V_{\text{displaced}}$$

$$\rho = 1 \text{ g/cm}^3, \text{ or } 1000 \text{ kg/m}^3$$

$$F = 1000 * 9.8 * (1/2 * 0.5 * 0.5 * 0.35)$$

428.75