Answer on Question 40304, Physics, Mechanics | Kinematics | Dynamics

Question: A piece of plastic barely floats in water. If it has a mass of 20g, what is its volume?

Solution. From the fact that it **barely** floats we can conclude, that its density is very close to the density of water, $\rho = 1000$ g/m³. Hence, its volume can be found as

$$V = \frac{m}{\rho} = \frac{0.02\,kg}{1000\,kg/m^3} = 2 \cdot 10^{-5}\,m^3 = 20\,cm^3$$