

1 A sphere of radius r is made from material of density ρ_{M} . The sphere is fully immersed in a liquid of density ρ_{L} .

Which of the following expressions gives the upthrust on the sphere?

☐ **A** $4\pi r^2 \rho_{\text{M}}$

☐ **B** $\frac{4}{3}\pi r^3 \rho_{\text{M}} g$

☐ **C** $\frac{4}{3}\pi r^3 \rho_{\text{L}} g$

☐ **D** $4\pi r^2 \rho_{\text{L}} g$

(Total for Question 1 = 1 mark)