5. Let the volume of the expanded air sacs be V_a and that of the fish with its air sacs collapsed be V. Then

$$\rho_{\text{fish}} = \frac{m_{\text{fish}}}{V} = 1.08\,\text{g/cm}^3 \quad \text{and} \quad \rho_w = \frac{m_{\text{fish}}}{V + V_a} = 1.00\,\text{g/cm}^3 \ .$$

where ρ_w is the density of the water. This implies $\rho_{\text{fish}} V = \rho_w (V + V_a)$ or $(V + V_a)/V = 1.08/1.00$, which gives $V_a/(V + V_a) = 7.4\%$.