

40. **REASONING AND SOLUTION** The upward buoyant force of the water on the iceberg must equal the weight of the iceberg if it floats,  $F_B = W$ , so that  $\rho_w g V = \rho_i g V_i$ . Now

$$V/V_i = \rho_i/\rho_w = (917 \text{ kg/m}^3)/(1025 \text{ kg/m}^3) = 0.895$$

The percent of the volume of the iceberg which is submerged is 89.5%.