

$$V_1 = 1.50 \text{ cm}^3$$

$$\begin{aligned} P_1 &= P_0 + g \cdot \rho \cdot h \\ &= (1.0 \times 10^5 \text{ Pa}) + (9.8 \text{ m/s}^2)(1000 \text{ kg/m}^3)(100 \text{ m}) \\ &= 1.08 \times 10^6 \text{ Pa} \end{aligned}$$

$$P_2 = 1.0 \times 10^5 \text{ (atm pressure)}$$

$$T_1 = T_2$$

$$\frac{P_1 \cdot V_1}{T_1} = \frac{P_2 \cdot V_2}{T_2}$$

$$(1.08 \times 10^6 \text{ Pa})(1.50 \text{ cm}^3) = (1.0 \times 10^5 \text{ Pa}) \cdot V_2$$

$$V_2 = 16.2 \text{ cm}^3$$