

26. **REASONING AND SOLUTION** The difference in pressure between the ground and the roof is $\Delta P = \rho gh$, so

$$h = \frac{(13.0 \text{ mm Hg}) \left(\frac{133 \text{ Pa}}{1 \text{ mm Hg}} \right)}{(1.29 \text{ kg/m}^3)(9.80 \text{ m/s}^2)} = \boxed{137 \text{ m}}$$

Note that we have used the fact that $133 \text{ Pa} = 1 \text{ mm Hg}$ as a conversion factor.