

## Height building

The atmospheric pressure at the top of a tower is 99.0 kPa and at the bottom of the tower it is 101.0 kPa. Assume the density of air to be 1.2 kg/m<sup>3</sup>. What is the height of the building?

Answer: 170 m

$$P_{top} - P_{bottom} = \rho gh \rightarrow h = \frac{\Delta P}{\rho g} = (101 - 99) * \frac{10^3}{(1.2 * 9.81)} = 170m$$