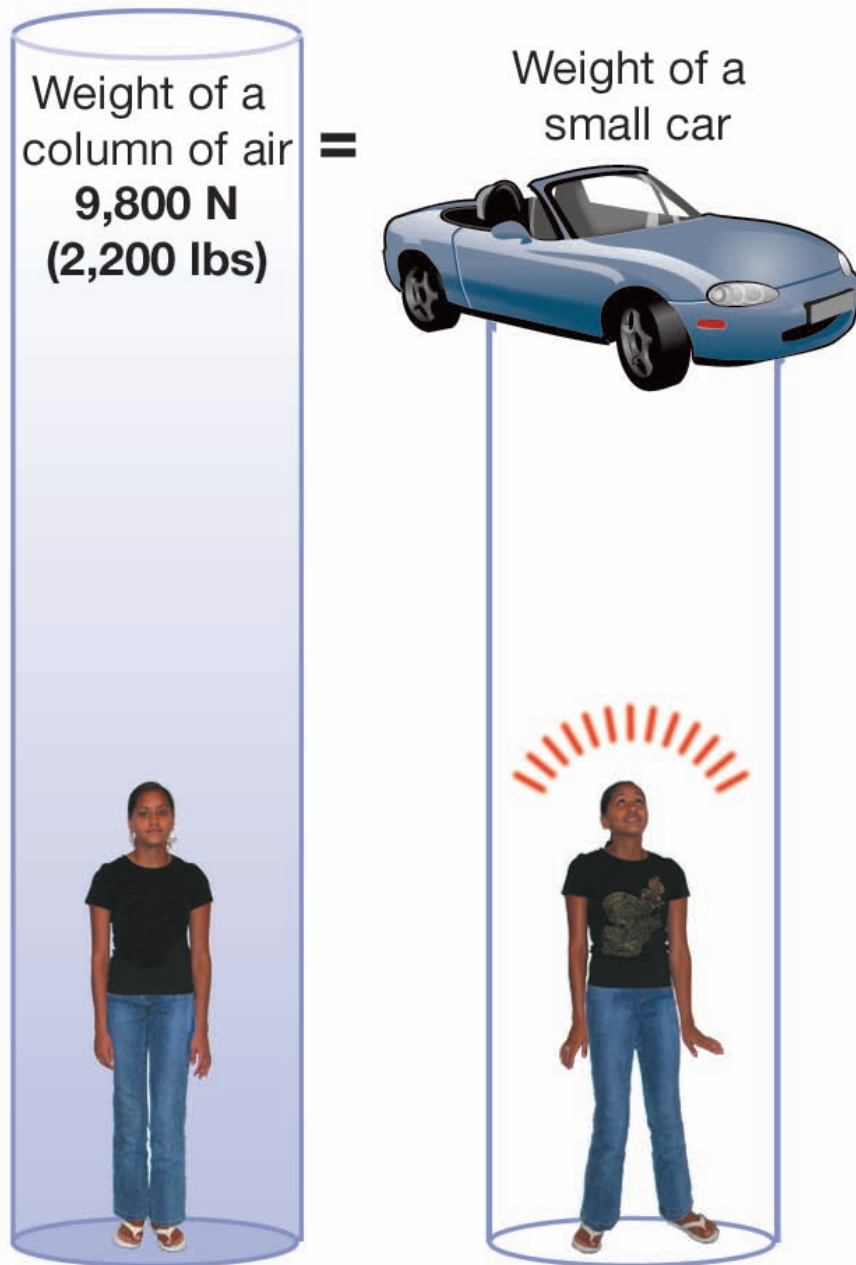


Air Pressure at Sea Level



Solving Problems: Boyle's Law

BOYLE'S LAW

$$\begin{array}{ccccccc} & & \text{Initial volume} & & \text{New pressure} & & \\ & & | & & | & & \\ \text{Initial pressure} & - & P_1 V_1 & = & P_2 V_2 & - & \text{New volume} \\ & & | & & | & & \\ & & 1 & & 2 & & \end{array}$$

Mass and temperature remain constant

Solving Problems: More Gas Laws

PRESSURE-TEMPERATURE RELATIONSHIP

$$\begin{array}{l} \text{Initial pressure} \\ \text{Initial temperature (K)} \end{array} \frac{P_1}{T_1} = \frac{P_2}{T_2} \begin{array}{l} \text{New pressure} \\ \text{New temperature} \end{array}$$

Volume and mass remain constant

CONVERTING CELSIUS TO KELVIN

$$T_{\text{Kelvin}} = T_{\text{Celsius}} + 273$$

CHARLES' LAW

$$\begin{array}{l} \text{Initial volume} \\ \text{Initial temperature (K)} \end{array} \frac{V_1}{T_1} = \frac{V_2}{T_2} \begin{array}{l} \text{New volume} \\ \text{New temperature (K)} \end{array}$$

Pressure and mass remain constant