Partial pressure (section 11.6)

Dalton's law of partial pressure says that the pressure of a gas is that due to each kind of particle acting as if it were the only one in the container.

Assume dry air is 80.0% nitrogen and 20.0% oxygen, by volume. Calculate the mass in grams of 1.00 L of dry air at 20.0 °C, 1.00 bar.

Assume humid air is 10.0% water by volume, and the remainder is nitrogen and oxygen in the same proportion by volume as dry air. Calculate whether the mass of 1.00 L of humid air at 20.0 °C, 1.00 bar is the same, higher, or lower than the mass of 1.00 L of dry air 20.0 °C, 1.00 bar.