Solve each of the problems using Dalton’s Law of Partial Pressures. SHOW WORK & UNITS!

1. A mixture of oxygen, carbon dioxide, and nitrogen has a total pressure of 1.42 atm. What is the partial pressure of O2, if the partial pressure of CO2 is 0.55 atm and the partial pressure of N2 is 0.13 atm?
2. What is the partial pressure of H2(g) in a mixture of H2 & He if the total pressure is 817 mm Hg & the partial pressure of He is 423 mm Hg?
3. Find the total pressure for mixture that contains 4 gases with partial pressures of 6.42 kPa, 7.13 kPa, 3.02 kPa, and 4.75 kPa.
4. Find the partial pressure of CO2 in a gas mixture with a total pressure of 36.1 kPa if the partial pressures of the other two gases in the mixture total 20.3 kPa?
5. What is the total gas pressure in a sealed flask that contains oxygen at a partial pressure of 0.41 atm and water vapor at a partial pressure of 0.58 atm?
6. Find the partial pressure of oxygen in a sealed vessel that has a total pressure of 2.6 atm and also contains carbon dioxide at 1.3 atm and helium at 0.22 atm.
7. If the total pressure of a flask of gas is 37.82 torr, the partial pressure of Ne is 4.35 torr, the partial pressure of Kr is 16.13 torr, what is the partial pressure of torr?
8. What is the pressure of a mixture of nitrogen and oxygen is the partial pressure of N2 is 594 mm Hg and the partial pressure of O2 is 165 mm Hg?
9. A sample of air is collected at 101.1 kPa. If the partial pressure of water vapor in the sample is 2.08 kPa, what is the partial pressure of the dry air?
10. What is the partial pressure of water vapor in an air sample when the total pressure is 1.00 atm, the partial pressure of nitrogen is 0.79 atm, the partial pressure of oxygen is 0.20 atm, and the partial pressure of all other gases in air is 0.0044 atm?