Instructions: Complete the following problems. SHOW ALL WORK in the empty space below the questions.
Remembers the units. Round to the nearest hundredths place.

Partial Pressure

1. A mixture containing 0.765 mol He(g), 0.330 mol Ne(g), and 0.110 mol Ar(g) is confined in a 10.0 L vessel at 25.00ºC.
    a) Calculate the partial pressure of each gas in the mixture.

    b) Calculate the total pressure of the mixture.

2. A deep-sea diver uses a gas cylinder with a volume of 10.0 L and a content of 51.2 g of O_2 and 32.6 g of He. The temperature of the gas is 19.00ºC.
    a) Calculate the partial pressure of each gas in the mixture.

    b) Calculate the total pressure of the mixture.

3. A mixture of gases contains 0.750 mol N_2, 0.300 mol O_2, and 0.150 mol CO_2. If the total pressure of the mixture is 2.150 atm, what is the partial pressure of each component?

4. A mixture of gases contain 78.3 mol % CO_2, 3.7 mol % O_2, and 18.0 mol % Ar. Calculate the partial pressure in atm of each gas in the mixture is the total pressure of the atmosphere is 4.10 atm.