Honors Chemistry Chapter 11 Gas Laws Worksheet

1. Analysis of a gaseous chlorofluorocarbon, CCl_xF_y, shows it contains 11.79% C and 69.57% Cl. In another experiment you find that 0.107 grams if the compound fills a 458 mL flask at 25° C with a pressure of 21.3 mm Hg.
    a. Find the number of moles in the sample. [0.000524mol]
    b. Find the molar mass of the chlorofluorocarbon. [204 g/mol]
    c. (Challenge) Find the molecular formula of the compound. [$C_2Cl_4F_2$]
2. At what temperature will a gas be at if you allow it to expand from an original 456 mL at 65° C to 3.4 L? [2247°C or 2200°C]
3. Hydrogen is collected over water when the atmospheric pressure is 103.0kPa and the temperature is 21.0 C. When the g[redacted]