BFF: Le Chatelier and Dalton HW

Read and outline (Cornell style) **Section 13.1** in your chemistry textbook. ****Your section outline must be at least ½ page with 3-4 topic questions.**** Then answer the following assessment questions.

1. Use Le Chatelier's principle to complete the chart for the chemical reaction:

$$COCl_2(g) \leftrightarrow CO(g) + Cl_2(g)$$

Stress	Equilibrium Shift	[COCl$_2$]	[CO]	[Cl$_2$]
Increase pressure	**left**			
Decrease pressure				↑
Add COCl$_2$		----	↑	
Remove CO		↓	----	

2. Use's Dalton's Law of Partial Pressure to answer the following questions:

    a. The barometer shows the atmospheric pressure to be 762 mm Hg. What is the partial pressure of nitrogen if nitrogen makes up 78 percent of the air?

    b. What partial pressure of oxygen is a scuba diver breathing if the total pressure is 6.3 atm, and 20 percent of the air is oxygen?

    c. What is the atmospheric pressure if the partial pressures of nitrogen, oxygen, and argon are 77.75 kPa, 19.94 kPa, and 1.99 kPa, respectively?

    d. The partial pressure of water vapor in a greenhouse is 139.0 mm Hg, which is 18 percent of the total pressure. What is the total pressure in the greenhouse?