Mixed Gas Laws Practice

1. If I initially have a gas at a pressure of 14.0atm, a volume of 28.0 liters, and a temperature of 205K, and then I raise the pressure to 20.0atm and increase the temperature to 300.0K, what is the new volume of the gas?
2. A volume of air occupying 12.0L at 98.9kPa is compressed to a pressure of 119.0kPa? If the temperature remains constant, what is the new volume of air?
3. What volume would a gas occupy if 0.158mol of a gas is held at a pressure of 0.998atm and a temperature of 28 degrees Celsius?
4. A gas takes up a volume of 15.0 liters, has a pressure of 2.80atm, and a temperature of 299K. If I raise the temperature to 350K and lower the pressure to 1140mmHg, what is the new volume of the gas?
5. A balloon is inflated to have a volume of 0.750L and a temperature of 20 degrees Celsius. What will the volume of the balloon be after he heats it to a temperature of 250 degrees Celsius?
6. 10.00L of a gas at 3.50atm is compressed to 473mL. What is the new pressure of the gas?
7. The pressure of a 17.5L container of gas is 3.00atm and the container is held at a temperature of 20.0 degrees Celsius. If the volume of the gas is held constant, what would the temperature of the gas be if the pressure is decreased to 2.25atm?
8. If you expect a chemical reaction to produce 4.38L of oxygen at 19.0 degrees Celsius and 101kPa, what would the volume of the gas be at 25.0C and 101kPa?
9. Suppose you had a 3.15L sample of neon gas at 21.0 degrees Celsius and a pressure of 0.951atm. What would the volume of this gas be if the pressure were increased to 1.292atm while the temperature remained constant?
10. A diving bell is a container open at the bottom. As the bell descends, the water level inside changes so that the pressure inside equals the pressure outside. Initially, the volume of air is 8.58L at 1.020atm and 20.0 degrees Celsius. What is the volume at 1.584atm and 25.0 degrees Celsius?
11. If a gas in a closed container is pressurized from 15.0 atmospheres to 16.0 atmospheres and its original temperature was 25.0 degrees Ceslsius, what would the final temperature of the gas be?
12. How many moles of a gas would you have if you had 48.0L of a gas held at a pressure of 2.3 atm held at a temperature of 303K?
13. 500.0 liters of a gas are prepared at 700.0 mm Hg and 200.0 degrees Celsius. The gas is placed into a tank under high pressure. When the tank cools to 20.0 degrees Celsius, the pressure of the gas is 30.0atm. What is the volume of the gas?