

HW 11.1 The Gas Laws. Name: \_\_\_\_\_ Band: \_\_\_\_\_

- 1.) A gas has a pressure of 655 kPa at 227 deg C. What will the pressure be at 27 deg C if the volume does not change?
  
- 2.) A 10 gram mass of krypton gas occupies a volume of 15 L at a pressure of 156 kPa. Find the volume when the Pressure is increased to 215 kPa.
  
- 3.) A gas occupies a volume of 180 mL at 35 deg C and 95.9 kPa. What is the volume of the gas at conditions of STP?
  
- 4.) A gas has a volume of 550 mL at a temperature of -55 deg C. What volume will the gas occupy at 30 deg C assuming the pressure is constant?
  
- 5.) A sample of hydrogen gas occupies a volume of 1.2 L at a pressure of 425 kPa. What will the new volume of the gas be at 615 kPa if temperature is cont?
  
- 6.) A sample of nitrogen gas occupies a volume of .650 L at 20 deg C. What volume would the gas occupy at 40 deg C if the pressure remains constant?
  
- 7.) The temperature of a sample of He at 85.0 kPa is 37 deg C. If the volue of the gas remains constant, what temperature (in deg C) would the pressure of the gas be at 98 kPa?
  
- 8.) If a sample of oxygen gas occupies a volume of 3.5 L at 57 deg C and 80 kPa, what volume would it occupy at STP?
  
- 9.) If a sample of oxygen occupies a volume of 2.15 L at a pressure of 58 kPa and a temperature of 25 deg C, what volume would it occupy at 101.3 kPa and 0 deg C?
  
- 10.) A gas occupies 40 mL at -123 deg C. What volume does it occupy at 27 deg C?