Honors Chem 1: Gases Review WS

Gas pressure is due to: COLLISIONS OF GAS PARTICLES

Temperature is a measure of: AVERAGE KINETIC ENERGY OF THE PARTICLE

3. A vacuum can be described as EMPTY SPACE

If I initially have a gas at a pressure of 14atm, a volume of 28 liters, and a temperature of 205 K, and then I raise the pressure to 20.0atm and increase the temperature to 300.0K, what is the new volume of the gas?

T2 P.V1 = V2

(1300.0 K) (14 oxtm) (28L) (20.0gtm)(205K) = 29

It is not safe to put aerosol spray cans in a campfire because the pressure inside the can gets very high and it can explode. If I have a 1.00 L can that holds 2.25 moles of gas, and the campfire temperature is 1400.°C, what is the

pressure inside the can? PV=nRT

P= nRT T=1400, + 273.15 =1673K

P = 2.25 met · 0.08206 atm. K. met · 1673 K

6. 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?

98.9×80.12.01 = 9.97 L

7. What volume would be occupied by 100.0 g of oxygen gas at a pressure of 1.50 atm and a temperature of 25°C?

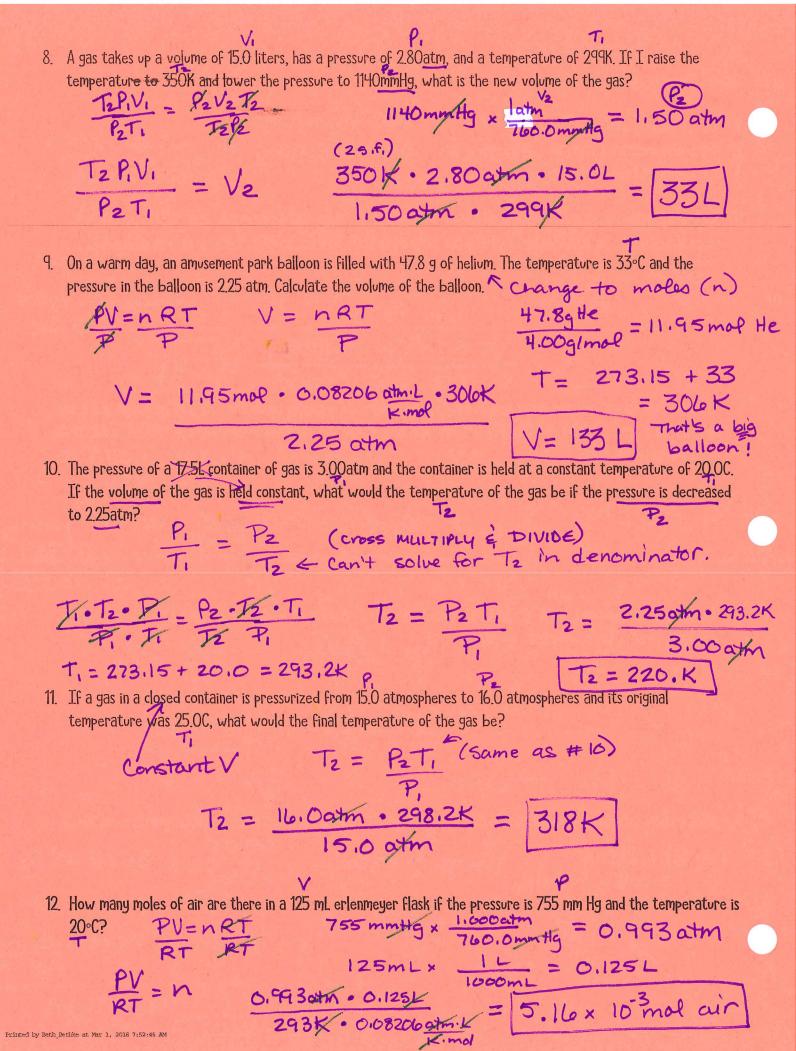
T= 25 + 273.15 = 298K <- 35.F.

100.0g = 3.125 mol 0z

PV=nRT V=nRT

V= 3,125 mol . 0.08206 ghirl . 798

1.50 atm



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