Chemistry I
Unit #17—Gases

Ideal Gas Law

PV = nRT

Pressure in atmospheres
Volume in liters
n is moles
R is Universal Gas Constant, 0.08206 Latm/Kmol
Temperature in Kelvins

1. **Determine the volume of occupied by 2.34 moles of carbon dioxide gas at 1 atm and 298.15 K.**

   P =
   V =
   n =
   R = 0.08206 Latm/Kmol
   T =

2. **A sample of argon gas at 4.56 atmospheres and 315 K occupies 56.2 liters. Determine the number of moles of argon.**

   P =
   V =
   n =
   R = 0.08206 Latm/Kmol
   T =

3. **At what temperature will 0.654 moles of neon gas occupy 12.30 liters at 1.95 atmospheres?**

   P =
   V =
   n =
   R = 0.08206 Latm/Kmol
   T =

4. **Oxygen gas occupies 7.88 L at a temperature of 789 K. If there are 1.445 moles of oxygen gas in the container, what is the pressure in the container?**

   P =
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