

Ideal Gas Law Practice:

Name: _____ Pd: _____

Directions: Solve the following problems showing formula, setup, and answer with units.

1. What is the pressure, in atmospheres, exerted by a 0.500 mol sample of nitrogen in a 10.0 L container at 298 K?
2. What is the volume in liters occupied by 0.250 mol oxygen at 20.0°C and 740 mmHg pressure?
3. What mass of chlorine (Cl_2), in grams, is contained in a 10.0 L tank at 27°C and 3.50 atm of pressure?
4. What pressure, in atmospheres, is exerted by 0.325 mole of hydrogen (H_2) in a 4.08 L container at 35°C?
5. What is the mass, in grams of oxygen (O_2) in a 12.5 L container at 45°C and 7.22 atm?
6. Calculate the pressure, in atm, exerted by 750 mL of CO_2 containing 2.15 mole at 57°C.
7. Calculate the volume, in L, occupied by 4.00 grams of O_2 at 57°C and 102.5 kPa.

For more practice on the Ideal Gas Law, try these on your own notebook paper and staple them to your packet when you turn it in: