

Use the Avogadro's Law or the Ideal Gas Law equation to solve the problems below.

1. A container of nitrogen gas contains 0.55 mol at 7.0 atm and 45°C, and it has a volume of 2.0 L. What volume will 1.20 mol of nitrogen have at 7.0 atm and 45°C?
2. What volume will 3.50 mol of ammonia gas occupy at conditions of standard temperature and pressure?
3. What will the volume of a typical inhaled human breath of 0.020 mol at 1.0 atm and 37°C?
4. What volume of air is present in human lungs if 0.19 mol are present at 312 K and 1.3 atm?