## Success 24/7 Chemistry: All Gas Law Practice

1. At $210.0^{\circ} \mathrm{C}$ a gas has a volume of 8.00 L . What is the volume of this gas at $-23.0^{\circ} \mathrm{C}$ ?
2. If 10.0 liters of oxygen at STP are heated to $512{ }^{\circ} \mathrm{C}$, what will be the new volume of gas if the pressure is also increased to 1520.0 mmHg ?
3. A gas occupies 11.2 liters at 0.860 atm. What is the pressure if the volume becomes 15.0 L?
4. A 32.6 mL sample of hydrogen gas is collected over water using a technique known as water displacement. The temperature of the gas is 295 K . The total pressure of the mixture (hydrogen and water vapor) is 785.2 torr. At 295 K the vapor pressure of water is 19.8 torr. Find the pressure of the hydrogen gas alone.
5. A 30.0 L sample of nitrogen inside a rigid, metal container at $20.0^{\circ} \mathrm{C}$ is placed inside an oven whose temperature is $50.0^{\circ} \mathrm{C}$. The pressure inside the container at $20.0^{\circ} \mathrm{C}$ was at 3.00 atm . What is the pressure of the nitrogen after its temperature is increased?
6. At what temperature will 0.654 moles of neon gas occupy 12.30 liters at 1.95 atmospheres?
7. A tank containing ammonia and argon has a total pressure equal to 1.8 atm . The pressure of the ammonia is 1.2 atm . What is the pressure of the argon gas?
