

1	P_1 1.5 atm	V_1 3.0 L	T_1 20° C	P_2 2.5 atm	V_2 ?	T_2 30° C
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2	P_1 600 mmHg	V_1 2.5 L	T_1 22° C	P_2 760 mmHg	V_2 1.8 L	T_2 ?
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3	P_1 ?	V_1 750 mL	T_1 0.0° C	P_2 2.0 atm	V_2 500 mL	T_2 25° C
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4	P_1 95 kPa	V_1 4.0 L	T_1 ?	P_2 101 kPa	V_2 6.0 L	T_2 471 K or 198° C
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5 A sample of oxygen gas occupies a volume of 250. mL at 740. torr pressure. What volume will it occupy at 800. torr pressure?

6 A sample of carbon dioxide occupies a volume of 3.50 liters at 125 kPa pressure. What pressure would the gas exert if the volume was decreased to 2.00 liters?

- 7 A 2.0 liter container of nitrogen had a pressure of 3.2 atm. What volume would be necessary to decrease the pressure to 1.0 atm?
- 8 Ammonia gas occupies a volume of 450. mL at a pressure of 720. mm Hg. What volume will it occupy at standard pressure?
- 9 A 175 mL sample of neon had its pressure changed from 75 kPa to 150 kPa. What is its new volume?
- 10 A sample of nitrogen occupies a volume of 250 mL at 25° C. What volume will it occupy at 95° C?
- 11 Oxygen gas is at a temperature of 40° C when it occupies a volume of 2.3 liters. To what temperature should it be raised to occupy a volume of 6.5 liters?
- 12 Hydrogen gas was cooled from 150° C to 50° C. Its new volume is 75 mL. What was its original volume?
- 13 Chlorine gas occupies a volume of 25 mL at 300 K. What volume will it occupy at 600 K?

- 14 A sample of neon gas at 50°C and a volume of 2.5 liters is cooled to 25°C . What is the new volume?
- 15 How many moles of oxygen will occupy a volume of 2.5 liters at 1.2 atm and 25°C ?
- 16 What volume will 2.0 moles of nitrogen occupy at 720 mmHg and 20°C ?
- 17 What pressure will be exerted by 25 g of CO_2 at a temperature of 25°C and a volume of 500 mL?
- 18 At what temperature will 5.00 g of Cl_2 exert a pressure of 900. torr at a volume of 750 mL?
- 19 How many moles of nitrogen gas will occupy a volume of 347 mL at 6680 torr and 27°C ?
- 20 What volume will 454 grams (1 lb) of hydrogen occupy at 1.05 atm and 25°C ?