

COMBINED GAS LAW

Name _____

In practical terms, it is often difficult to hold any of the variables constant. When there is a change in pressure, volume and temperature, the combined gas law is used.

$$\frac{P_1 \times V_1}{T_1} = \frac{P_2 \times V_2}{T_2} \quad \text{or} \quad P_1 V_1 T_2 = P_2 V_2 T_1$$

Complete the following chart.

	P_1	V_1	T_1	P_2	V_2	T_2
1	1.5 atm	3.0 L	20° C	2.5 atm		30° C
2	720 torr	256 mL	25° C		250 mL	50° C
3	600 mmHg	2.5 L	22° C	760 mmHg	1.8 L	
4		750 mL	0.0° C	2.0 atm	500 mL	25° C
5	95 kPa	4.0 L		101 kPa	6.0 L	471 K or 198° C
6	650. torr		100° C	900. torr	225 mL	150° C
7	850 mmHg	1.5 L	15° C		2.5 L	30° C
8	125 kPa	125 mL		100 kPa	100 mL	75° C