

$PV = nRT$	$P =$ pressure in atm
	$V =$ Volume in Liters
	$n =$ number of moles
	$R =$ Universal Gas Constant
	0.0821 L·atm/mol·K
	$T =$ Kelvin Temperature

1. How many moles of oxygen will occupy a volume of 2.5 liters at 1.2 atm and 25 °C?

2. What volume will two moles of nitrogen occupy at 720 torr and 20 °C?

3. What pressure will be exerted by 25 g of CO₂ at a temperature of 25 °C and a volume of 500 mL?

4. At what temperature will 5.0 g of Cl₂ exert a pressure of 900 torr at a volume of 750 mL?

5. How many moles of nitrogen gas will occupy a volume of 347 mL at 6680 torr and 27 °C?

6. How many grams of CO_2 will exert a pressure of 785 torr at a volume of 32.5 L and a temperature of 32°C ?

7. If I have an unknown quantity of gas at a pressure of 1.2 atm, a volume of 31 liters, and a temperature of 87°C , how many moles of gas do I have?

8. If I have 21 moles of gas held at a pressure of 78 atm and a temperature of 900 K, what is the volume of the gas?

9. If I have 0.275 moles of gas at a temperature of 75 K and a pressure of 1.75 atmospheres, what is the volume of the gas?

10. If I contain 3 moles of gas in a container with a volume of 60 liters and at a temperature of 400 K, what is the pressure inside the container?