

## Gas Laws: Math 🤖

1. Write down the formulas for each Gas Law:

Gas Law	Formula
1. Boyles Law	
2. Charles Law:	
3. Ideal Gas Law:	
4. Combined Gas Law:	
5. Avogadro's Law:	
6. Gay Lussac's Law:	

2. Calculate the number of moles of Helium gas you will have at a temperature of 56 degrees F, a pressure of 3 atm, and a volume of 33.26ml.

3. Calculate the partial pressures exerted by a gas mixture of 33 percent O and 67 percent N with a total pressure of 5.63 atm.

4. A gas sample has an initial volume of 3.25 liters at a pressure of 4 atm. As the pressure increases, the volume decreases to 1.25 liters, what is the final pressure of the gas?

5. A car tire currently holds 66.53 liters of gas at a temperature of 56 degrees C, if the temperature increases to 400 degrees Kelvin, what will the resulting pressure of the tire be?

6. At a constant temperature and pressure, 4 moles of a gas sample has an initial volume of 3.56 liters. If you increase the gas to be 8 moles, what will the resulting volume be?