

Quiz for Video 8 – Gas Relationships

- How many torr is equivalent to 1 atmosphere?
 - 1 torr
 - 101 torr
 - 760 torr
 - Not enough info
- Pressure and Temperature have a _____ relationship. This means as Temperature increases, pressure _____.
 - Direct, increases
 - Direct, decreases
 - Indirect, increases
 - Indirect, decreases
- True or false: the ideal gas law assumes that all gas particles behave the same, regardless of identity.
 - True
 - False
- True or false: the ideal gas law assumes that all gas particles have the same mass.
 - True
 - False
- If I combine a 1L sample of oxygen at 0.44 atm with a 1L sample of nitrogen at 0.26 atm into a new 1L container, what will the total pressure be in the new container?
 - Less than 0.70 atm
 - 0.70 atm
 - More than 0.70 atm
- If I have a reaction that has created 2.0L of gas at 350K and 1.0 atm, which equation should I use to determine the moles of gas produced?
 - The Ideal Gas Law ($PV=nRT$)
 - Boyle's Law ($P_1V_1 = P_2V_2$)
 - Charles's Law ($V_1/T_1 = V_2/T_2$)
 - Avogadro's Law ($V_1/n_1 = V_2/n_2$)
- For the problem above (Problem 6), how many moles of gas are produced?
 - 0.0696 moles
 - 0.08206 moles
 - 1 mole
 - 2.0 moles
- If I have a rigid, sealed container, which gas variables will not be able to change.
 - Volume & Pressure (V, P)
 - Pressure & Moles (P, n)
 - Pressure & Temperature (P, T)
 - Volume & Moles (V, n)
- If I have a flexible, sealed container, which gas variables will be unable to change?
 - Volume & Pressure (V, P)
 - Pressure & Moles (P, n)
 - Pressure & Temperature (P, T)
 - Volume & Moles (V, n)
- When I drive a long distance I notice my tire pressure increases. Why is this?
 - Moles of gas in the tire has increased
 - Volume of the tire has decreased
 - Temperature of the tire has increased
 - The ideal gas law is not obeyed