

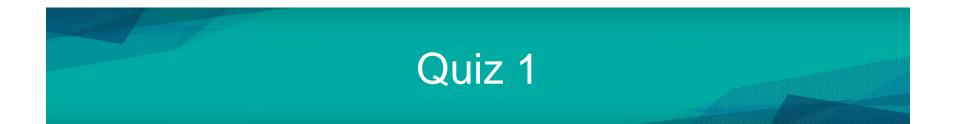
Quiz Chapter 4 The Properties of Mixtures

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- A gas at 250 K and 15 atm has a molar volume 12% smaller than that calculated from the perfect gas law. Calculate
- a) The compression factor under these condition (ans: 0.88)
- b)The molar volume of the gas (ans: 1.2 L/mol)





- A vessel of volume 24.4 dm³ contains 1.0 mol H₂ and 2.5 mol N₂ at 298.15 K. Compute the following process
 - a) Each component with the following mole fraction (Ans: $H_2=0.286$, $N_2=0.714$)
 - b) Their partial pressure
 - (Ans: H₂: 101.6 kPa, N₂=254.5kPa)
 - c) Their total pressure

(Ans: 355.4 kPa)



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