

Chemguide – questions

IDEAL GASES

1. The Chemguide page gives seven Kinetic Theory assumptions about ideal gases, two of which are especially important because they are what distinguish ideal gases from real gases.
 - a) Give the two most important assumptions.
 - b) State any three of the other five assumptions.
2. Use the ideal gas equation to work out the mass of 3.75 dm^3 of hydrogen at 21.5°C and a pressure of 102 kPa . (RAM H = 1; $R = 8.31441 \text{ J K}^{-1} \text{ mol}^{-1}$.)
3. 2.50 dm^3 of an unknown gas had a mass of 4.17 g at 18°C and a pressure of 101 kPa . Calculate the relative molecular mass of the gas. ($R = 8.31441 \text{ J K}^{-1} \text{ mol}^{-1}$.)

(You need to do more practice questions than this, but you will have to find another source such as my calculations book, or similar. You must do this. The only way of gaining confidence in calculations is to do lots of them.)