

- 14** When water is boiled at atmospheric pressure, the steam produced behaves like an ideal gas. A water molecule has a mass of $18u$.

What is the root-mean-square speed of the water molecule in the steam?

- A** 330 m s^{-1} **B** 370 m s^{-1} **C** 640 m s^{-1} **D** 720 m s^{-1}

- 15** A gas of 1.0 mol of a diatomic molecule is heated at constant volume. The temperature of the gas rises by 50°C . What is the change in the internal energy of the gas?