

11 1.00 g of nitrogen gas is stored in a 2.00 dm³ vessel at 40.0 °C.

What is the pressure in the vessel?

- A** 5940 Pa **B** 11 900 Pa **C** 46 400 Pa **D** 92 900 Pa

8 A pure sample of a gas has a density of 2.62 g dm⁻³ at 101 000 Pa and 25 °C. The gas behaves ideally under these conditions.

Which expression gives the M_r of the gas?

- A** $\frac{101\,000 \times 0.001}{2.62 \times 8.31 \times 25}$
- B** $\frac{101\,000 \times 0.001}{2.62 \times 8.31 \times 298}$
- C** $\frac{2.62 \times 8.31 \times 25}{101\,000 \times 0.001}$
- D** $\frac{2.62 \times 8.31 \times 298}{101\,000 \times 0.001}$