

1 Which statement about the Avogadro constant is correct?

**A** There are  $6.02 \times 10^{23}$  atoms in 1 mole of carbon.

**B** There are  $6.02 \times 10^{23}$  atoms in 1 kg of carbon.

**C**  $\frac{\text{mass of 1 mole of carbon}}{\text{one twelfth of mass of a carbon atom}} = 6.02 \times 10^{23}.$

**D** The volume of an atom of carbon is  $\frac{1}{(6.02 \times 10^{23})} \text{ m}^3.$

2 The power rating of a heater is 100 dW/