

- 11** A fixed mass of an ideal gas is at a pressure of  $1.0 \times 10^5$  Pa. It has a temperature of 300 K and a volume of  $0.010 \text{ m}^3$ .

What is the total kinetic energy of the gas molecules after the volume is changed to  $0.0050 \text{ m}^3$  at constant temperature?

- A** 500 J
- B** 1000 J
- C** 1500 J
- D** 2000 J