

- 14** Five gas molecules have the following velocities:

| | | | | | |
|------------------------------|-----|-----|-----|-----|-----|
| velocity / m s^{-1} | 250 | 300 | 400 | 100 | 500 |
|------------------------------|-----|-----|-----|-----|-----|

What is the root mean square speed?

- A** 150 m s^{-1} **B** 270 m s^{-1} **C** 340 m s^{-1} **D** 750 m s^{-1}

- 15** A gas has a root mean square speed of 400 m s^{-1} at a certain temperature. What is the root mean square speed of the gas at a temperature that is four times as high?