

- 12** An ideal gas is initially at  $127^{\circ}\text{C}$ . It is then heated until the r.m.s. speed of its molecules becomes doubled. The increase in temperature is

**A**  $381^{\circ}\text{C}$       **B**  $508^{\circ}\text{C}$       **C**  $1200^{\circ}\text{C}$       **D**  $1600^{\circ}\text{C}$