

- 18** A cylinder, closed by a moveable piston, contains an ideal gas at  $50^{\circ}\text{C}$  and atmospheric pressure  $1.0 \times 10^5 \text{ Pa}$ . The piston is moved out until the volume of the gas doubles and the temperature falls to  $25^{\circ}\text{C}$ .

What is the new pressure of the gas in the cylinder?

- A**  $1.6 \times 10^4 \text{ Pa}$
- B**  $2.5 \times 10^4 \text{ Pa}$
- C**  $4.6 \times 10^4 \text{ Pa}$
- D**  $1.9 \times 10^5 \text{ Pa}$