

- 13** A car tyre, initially at 25°C , has been inflated to a pressure of 200 kPa as indicated by the pressure gauge. This means that the pressure in the tyre is 200 kPa above atmospheric pressure of 100 kPa. After driving on hot roads, the temperature of the air in the tyre is 50°C .

What is the percentage increase in the pressure gauge reading?

- A** 8.4 % **B** 12.5 % **C** 100 % **D** 150 %

- 14** A piston in a cylinder is initially at a pressure of 100 kPa and a temperature of 25°C . The piston is then moved to a new position where the pressure is 200 kPa and the temperature is 50°C .