

**13** A car tyre, initially at  $25^{\circ}\text{C}$ , 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  $50^{\circ}\text{C}$ .

What is the percentage increase in the pressure gauge reading?

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