

- 7** The speed of a car is calculated from measurements of the distance travelled and the time taken.

The distance is measured as 200 m, with an uncertainty of ± 2 m.

The time is measured as 10.0 s, with an uncertainty of ± 0.2 s.

What is the percentage uncertainty in the calculated speed?

- A** $\pm 0.5\%$ **B** $\pm 1\%$ **C** $\pm 2\%$ **D** $\pm 3\%$

- 8** A science museum designs an experiment to show the fall of a feather in a vertical glass vacuum tube.

The time of fall from rest is to be close to 0.5 s.

What length of tube is required?

- A** 1.3 m **B** 2.5 m **C** 5.0 m **D** 10.0 m

Space for working