5 In an experiment, a radio-controlled car takes 2.50 ± 0.05 s to travel 40.0 ± 0.1 m.

What is the car's average speed and the uncertainty in this value?

A $16 \pm 1\,m\,s^{-1}$

B $16.0 \pm 0.2\,m\,s^{-1}$

C $16.0 \pm 0.4\,m\,s^{-1}$

D $16.00 \pm 0.36\,m\,s^{-1}$

6 In an experiment to determine the acceleration of free fall using a falling body, what would lead to a value that is too large?

A air resistance

B dimensions of the body are too large

C measured distance longer than true distance

D measured time longer than true time

7 Which feature of a graph allows acceleration to be determined?

A the area under a displacement-time graph

B the area under a velocity-time graph

C the slope of a displacement-time graph

D the slope of a velocity-time graph

Space for working