5 A steel ball is dropped and falls through a vertical height h. The time t taken to fall is measured using light gates.

The results are given in the table.

h	$(4.05 \pm 0.01)\,\text{m}$
t	$(0.91 \pm 0.02)\,\text{s}$

The acceleration of free fall g is calculated using the equation shown.

$$h = \tfrac{1}{2}gt^2$$

What is the percentage uncertainty in the value of g?

A 2.4%   **B** 4.6%   **C** 5.1%   **D** 9.3%