

- 5 A student measures the time T for one complete oscillation of a pendulum of length l .

Her results are shown in the table.

l/m	T/s
0.420 ± 0.001	1.3 ± 0.1

She uses the formula

$$T = 2\pi \sqrt{\frac{l}{g}}$$

to calculate the acceleration of free fall g .

What is the best estimate of the percentage uncertainty in the value of g ?

A 0.02%

B 4%

C 8%

D 16%