

- 3** In an experiment to determine the acceleration of free fall g , the time t taken for a ball to fall through distance s is measured. The percentage uncertainty in the measurement of s is 2%. The percentage uncertainty in the measurement of t is 3%.

The value of g is determined using the equation shown.

$$g = \frac{2s}{t^2}$$

What is the percentage uncertainty in the calculated value of g ?

- A** 1% **B** 5% **C** 8% **D** 11%