

- 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%

- 4** Which of the following is equal to $\sqrt{2}$?