

- 3 To study the performance of a car, a student measures the time t taken for the car of mass m to accelerate from rest to speed v . He calculates the quantity $P = \frac{1}{2} \frac{mv^2}{t}$.

The uncertainty in the value of m is 0.5%, in v is 3.0% and in t is 2.0%.

What is the uncertainty in the calculated value of P ?

A 4.5%

B 5.5%

C 8.5%

D 11.5%

