

17 The maximum useful output power of a car travelling on a horizontal road is P . The total resistive force acting on the car is kv^2 , where v is the speed of the car and k is a constant.

Which equation is correct when the car is travelling at maximum speed?

A $v^3 = \frac{P}{k}$

B $v^2 = \frac{P}{k}$

C $v = \left(\frac{P}{k}\right)^2$

D $v = \left(\frac{P}{k}\right)^3$