

- 17 The force resisting the motion of a car is proportional to the square of the car's speed. The magnitude of the force at a speed of 20.0 ms^{-1} is 800 N.

What useful output power is required from the car's engine to maintain a steady speed of 40.0 ms^{-1} ?

A 32 kW

B 64 kW

C 128 kW

D 512 kW