

**12** The drag force acting on a car moving at velocity  $v$  through still air is proportional to  $v^2$ .

When the car is travelling at  $20 \text{ m s}^{-1}$  on a level road, the power required to overcome the drag force is  $4800 \text{ W}$ .

What power is required when the car travels at  $25 \text{ m s}^{-1}$ ?

**A**  $6000 \text{ W}$

**B**  $7500 \text{ W}$

**C**  $8000 \text{ W}$

**D**  $9400 \text{ W}$