

- 3 The drag coefficient  $C_d$  is a number with no units. It is used to compare the drag on different cars at different speeds. It is given by the equation

$$C_d = \frac{2F}{\rho v^n A}$$

where  $F$  is the drag force on the car,  $\rho$  is the density of the air,  $A$  is the cross-sectional area of the car and  $v$  is the speed of the car.

What is the value of  $n$ ?

- A** 1                      **B** 2                      **C** 3                      **D** 4

- 4 A signal that repeats periodically is displayed on the screen of a cathode ray oscilloscope