**2** The maximum theoretical power $P$ of a wind turbine is given by the equation

$$P = k\rho Av^n$$

where $\rho$ is the density of air, $A$ is the area swept by the turbine blades, $v$ is the speed of the air and $k$ is a constant with no units.

What is the value of $n$?

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