

- 2** A radio aerial of length  $L$ , when the current is  $I$ , emits a signal of wavelength  $\lambda$  and power  $P$ . These quantities are related by

$$P = kI^2 \left( \frac{L}{\lambda} \right)^2$$

where  $k$  is a constant.

What unit, if any, should be used for the constant  $k$ ?

- A** volt
- B** ohm
- C** watt
- D** no unit

- 3** A ball is thrown vertically upwards and returns along the same path. The graph shows how its