

- 1 The energy  $E$  stored in a certain electronic component is given by

$$E = \frac{Q^n}{2k}$$

where  $Q$  is the total charge in the component,  $n$  is an unknown integer and  $k$  is a physical quantity with SI base units  $A^2 s^4 kg^{-1} m^{-2}$ .

What is the value of  $n$ ?

**A** -2

**B** -1

**C** 1

**D** 2