

- 4** The time period  $T$  of a pendulum is given by

$$T = 2\pi \left( \frac{L}{g} \right)^n$$

where  $L$  is the length of the pendulum and  $g$  is the acceleration of free fall.

The equation is homogeneous.

What is the value of  $n$ ?

**A** -2

**B**  $-\frac{1}{2}$

**C**  $\frac{1}{2}$

**D** 2