

- 1** The speed  $v$  of a liquid leaving a tube depends on the difference in pressure  $\Delta P$  between the ends of the tube and the density  $\rho$  of the liquid according to the equation

$$v = k \left( \frac{\Delta P}{\rho} \right)^n$$

where  $k$  is a unitless constant.

What is the value of  $n$ ?

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

**B** 1

**C**  $\frac{3}{2}$

**D** 2