

- 3** The speed v of a liquid leaving a tube depends on the change in pressure ΔP and the density ρ of the liquid. The speed is given by the equation

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

where k is a constant that has no units.

What is the value of n ?

A $\frac{1}{2}$

B 1

C $\frac{3}{2}$

D 2

Space for working