

- 1 The equation relating pressure and density is $p = \rho gh$.

How can both sides of this equation be written in terms of base units?

- A $[\text{N m}^{-1}] = [\text{kg m}^{-3}] [\text{m s}^{-1}] [\text{m}]$
- B $[\text{N m}^{-2}] = [\text{kg m}^{-3}] [\text{m s}^{-2}] [\text{m}]$
- C $[\text{kg m}^{-1} \text{s}^{-2}] = [\text{kg m}^{-3}] [\text{m s}^{-2}] [\text{m}]$
- D $[\text{kg m}^{-1} \text{s}^{-1}] = [\text{kg m}^{-1}] [\text{m s}^{-2}] [\text{m}]$

- 2 What is a reasonable estimate of the diameter of an alpha particle?