

2 The frictional force F on a sphere falling through a fluid is given by the formula

$$F = 6\pi a \eta v$$

where a is the radius of the sphere, η is a constant relating to the fluid and v is the velocity of the sphere.

What are the units of η ?

A kg m s^{-1}

B $\text{kg m}^{-1} \text{s}^{-1}$

C kg m s^{-3}

D $\text{kg m}^3 \text{s}^{-3}$

3 What is the component of this displacement vector in the direction XY?