1 The speed v of surface waves of wavelength λ on a liquid of density ρ is given by

$$v = \left[\left(\frac{x\lambda}{2\pi}\right) + \left(\frac{2\pi y}{\rho\lambda}\right)\right]^{\frac{1}{2}}$$

where x is a constant and y is a quantity characteristic of the liquid.

What are the SI base units for x and y respectively?

	x	y
A	$m^{1/2}\,s^{-1}$	$kg^{-1/2}\,m^{2}\,s^{-1}$
B	$m^{2}\,s^{-2}$	$kg^{-1/2}\,m^{2}\,s^{-1}$
C	$m\,s^{-2}$	$kg\,s^{-2}$
D	$m\,s^{-2}$	$kg\,m^{-2}$