THE WAVE EQUATION

The speed of a wave is the product of the wavelength and the frequency.

$$v = f\lambda$$

Quantity	Symbol	SI unit
speed	v	$\frac{m}{s}$ (metres per second)
frequency	f	Hz (or s^{-1})(hertz)
wavelength	λ	m (metres)

Unit Analysis

$$(\text{frequency})(\text{wavelength}) = \text{Hz m} = s^{-1} \, m = \frac{m}{s}$$