

# 10 Ramped Wave Speed Equation Calculations ( $v = f \times \lambda$ )

1. A water wave has a frequency of 2 Hz and a wavelength of 4 m. Calculate the wave speed.
2. A wave on a rope has a frequency of 5 Hz and a wavelength of 3 m. Calculate the wave speed.
3. A sound wave has a frequency of 200 Hz and a wavelength of 1.7 m. Calculate the wave speed.
4. A wave travels at 20 m/s and has a frequency of 4 Hz. Calculate its wavelength.
5. A water wave travels at 15 m/s and has a wavelength of 5 m. Calculate its frequency.
6. A sound wave travels through air at 340 m/s and has a frequency of 680 Hz. Calculate its wavelength.
7. A dolphin produces sound waves that travel at 1500 m/s. The wavelength is 0.75 m. Calculate the frequency.
8. A radio wave travels at 300000000 m/s and has a frequency of 1000000 Hz. Calculate the wavelength.
9. A mobile phone signal has a frequency of  $9.0 \times 10^8$  Hz and travels at  $3.0 \times 10^8$  m/s. Calculate the wavelength.
10. A radar system emits waves with a wavelength of  $3.0 \times 10^{-2}$  m. The waves travel at  $3.0 \times 10^8$  m/s. Calculate the frequency.