

Mathematics: Wave Calculations

<p>Wave Speed = wavelength \times frequency $v = \lambda f$ (v = wave speed, wavelength, frequency, wavelength)</p>	<p>Frequency = wave speed \div wavelength $f = v / \lambda$ (frequency, wave speed, wavelength)</p>
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1. A wave propagates along the frequency of electromagnetic radiation. Calculate the speed of the wave.
2. The speed of a wave is 300 m/s. What is the wavelength if the frequency is 500 Hz?
3. The speed of light is 300,000,000 m/s. What is the frequency of a wave with a wavelength of 1000 nm?
4. What is the period of a wave with a frequency of 50 Hz?
5. The wavelength of a wave is 200 cm. If the frequency is 1000 Hz, what is the speed of the wave?
6. The wavelength of a wave is 100 cm. If the frequency is 1000 Hz, what is the speed of the wave?
7. A wave has a frequency of 1000 Hz and a wavelength of 100 cm. What is the speed of the wave?
8. A wave has a frequency of 1000 Hz and a wavelength of 100 cm. Calculate the frequency of a wave with a wavelength of 100 cm.
9. Calculate the period of a wave with a frequency of 1000 Hz.
10. What is the wavelength of a wave with a frequency of 1000 Hz and a speed of 300 m/s?
11. What is the period of a wave with a frequency of 1000 Hz?
12. A wave has a frequency of 1000 Hz and a wavelength of 100 cm.
 - a. What is the speed of the wave?
 - b. Calculate the period of the wave if the frequency is 1000 Hz.
13. A wave has a frequency of 1000 Hz and a wavelength of 100 cm.
 - a. What is the speed of the wave?
 - b. What is the period of the wave?
14. A wave has a frequency of 1000 Hz and a wavelength of 100 cm. What is the speed of the wave?