Wavelength, Period & Frequency

1. Calculate the wavelength of a wave if 5 complete waves occupy a length of 20 m.
2. Calculate the wavelength of a wave if 15 complete waves occupy a length of 90 m.
3. Calculate the wavelength of a wave if 5 complete waves occupy a length of 2 m.
4. Calculate the wavelength of a wave if 80 complete waves occupy a length of 20 cm.
5. Calculate the wavelength of a wave if a third of a complete wave occupies a length of 4 m.

6. Calculate the period of a wave if 5 complete waves are produced in 60 seconds.
7. Calculate the period of a wave if 8 complete waves are produced in 72 seconds.
8. Calculate the period of a wave if 4 complete waves are produced in 2 seconds.
9. Calculate the period of a wave if 180 complete waves are produced in 1 minute.
10. Calculate the period of a wave if 6000 complete waves are produced in 10 minutes.

11. Calculate the frequency of a wave that has 120 oscillations in 10 seconds.
12. Calculate the frequency of a wave that has 50 oscillations in 20 seconds.
13. Calculate the frequency of a wave that has 80 oscillations in 120 seconds.
14. Calculate the frequency of a wave that has 180 oscillations in 3 minutes.
15. Calculate the frequency of a wave that has 18 000 oscillations in 5 hours.

16. Calculate the frequency of a wave that has period 0.2 second.
17. Calculate the frequency of a wave that has period 0.025 second.
18. Calculate the frequency of a wave that has period 4 seconds.
19. Calculate the frequency of a wave that has period 2 milliseconds.
20. Calculate the frequency of a wave that has period 0.5 ms.

21. Calculate the period of a wave that has frequency 10 Hz.
22. Calculate the period of a wave that has frequency 500 Hz.
23. Calculate the period of a wave that has frequency 0.2 Hz.
24. Calculate the period of a wave that has frequency 10 kHz.
25. Calculate the period of a wave that has frequency 25 MHz.

26. How many complete waves are produced in 60 seconds by a wave of period 5 seconds?
27. How many complete waves are produced in 140 seconds by a wave of period 2 seconds?
28. How many complete waves are produced in 10 seconds by a wave of period 0.5 seconds?
29. How many complete waves are produced in 2 minutes by a wave of period 6 seconds?
30. How many complete waves are produced in 1 hour by a wave of period 0.02 seconds?

31. How many complete waves of wavelength 2 m are found over a distance of 10 m?
32. How many complete waves of wavelength 5 m are found over a distance of 600 m?
33. How many complete waves of wavelength 50 cm are found over a distance of 20 m?
34. How many complete waves of wavelength 3 m are found over a distance of 9 km?
35. How many complete waves of wavelength 4 mm are found over a distance of 6 m?

36. How many complete waves are produced in 1 second by a wave of frequency 600 Hz?
37. How many complete waves are produced in 40 seconds by a wave of frequency 5 Hz?
38. How many complete waves are produced in 120 seconds by a wave of frequency 50 Hz?
39. How many complete waves are produced in 5 minutes by a wave of frequency 6 Hz?
40. How many complete waves are produced in 2 hours by a wave of frequency 200 Hz?

Equations to use:

frequency = number of oscillations / time taken

frequency = 1 / period; period = 1 / frequency