

Exercises

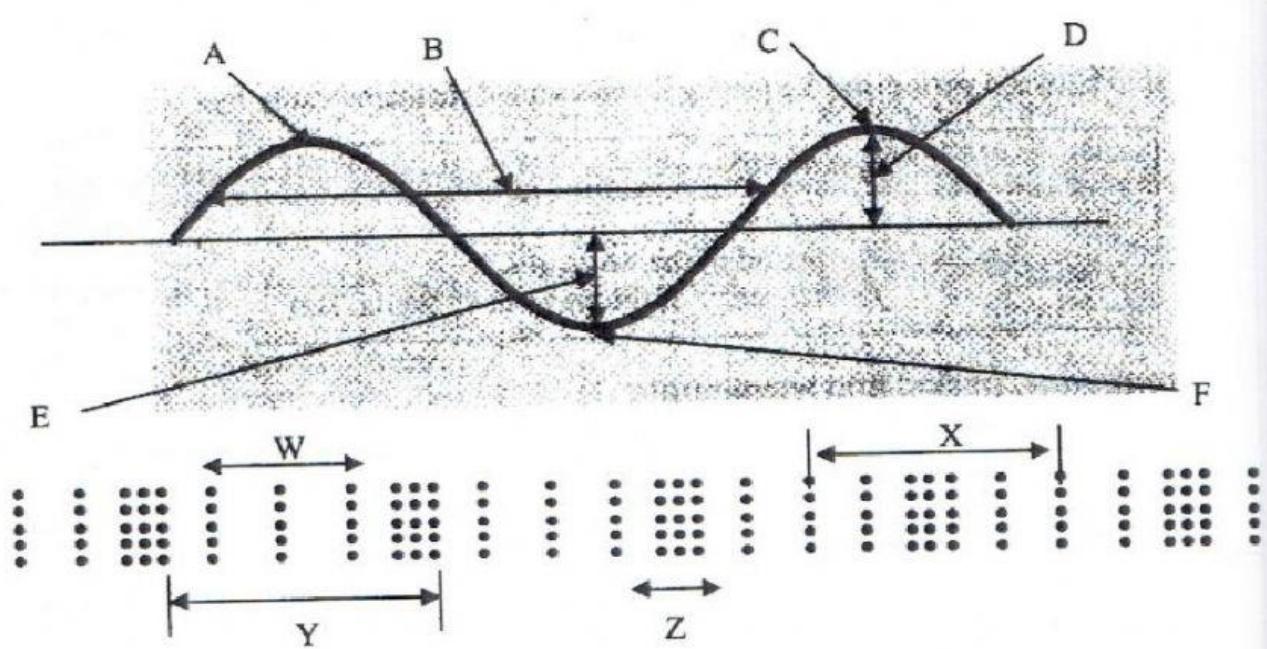
1. The number of waves per second passing a fixed point is called the _____ and is measured in _____.
2. The time taken for two adjacent crests to pass a fixed point is called the _____ and is measured in _____.
3. The maximum distance of particles from their resting position is called the _____.
4. The highest point on a sine wave is called a _____ or _____.
5. The lowest point on a sine wave is called a _____.
6. Define a transverse wave:

7. Define a longitudinal wave:

8. Give two examples of a transverse wave:

and _____
9. Give two examples of longitudinal waves:

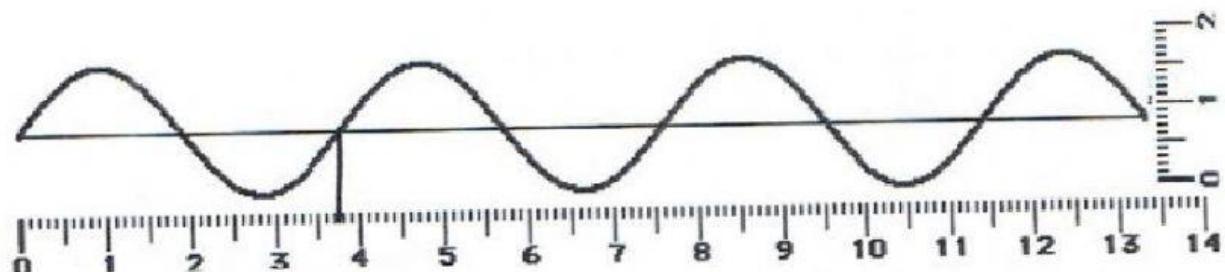
and _____
10. Using the diagrams below write the letter that identifies the following:
(i) _____ = crest
(ii) _____ = rarefaction
(iii) _____ = line of origin or rest position
(iv) _____ = amplitude
(v) _____ = compression
(vi) _____ = wavelength
(vii) _____ = trough



11. Calculate the velocity if wavelength = 8 m and $f = 20$ Hz.

12. Calculate wavelength if $v = 50$ m/s and $f = 25$ Hz.

13. Calculate frequency if $v = 120$ m/s and wavelength = 3 m.



14. Use the diagram above, record

- (a) _____ amplitude and
 (b) _____ wavelength

15. Period of the wave is 5 s. If the wavelength is 6 m, calculate:

- (a) the frequency
 (b) the speed.