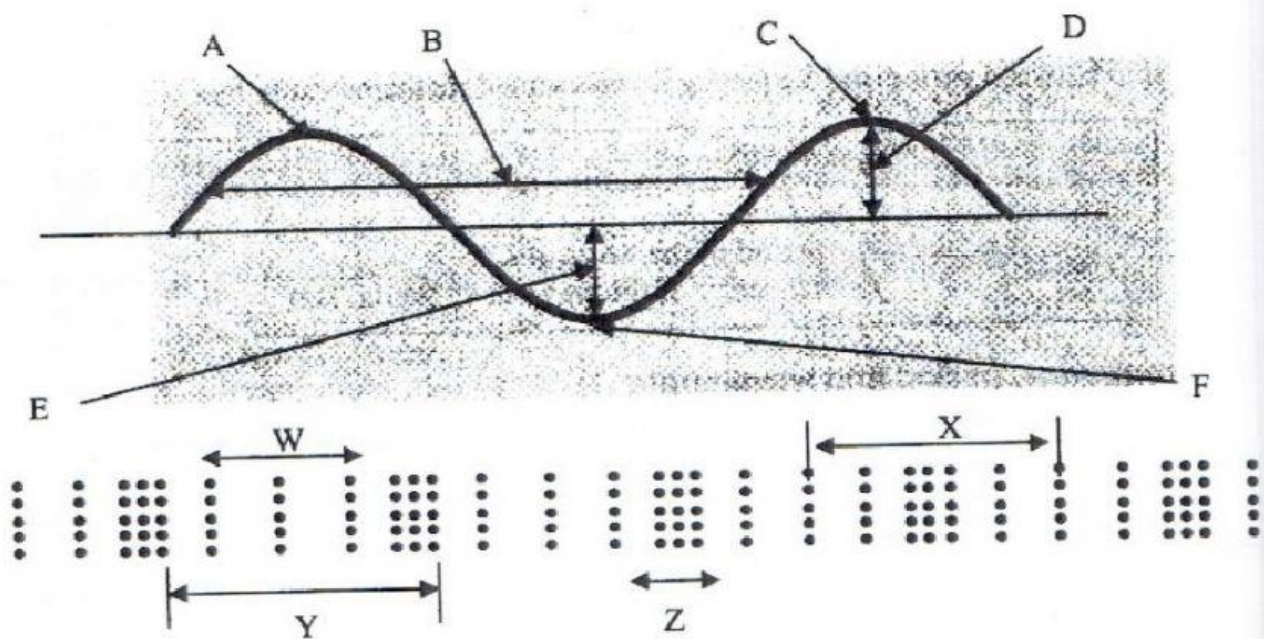


## Exercises

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:  

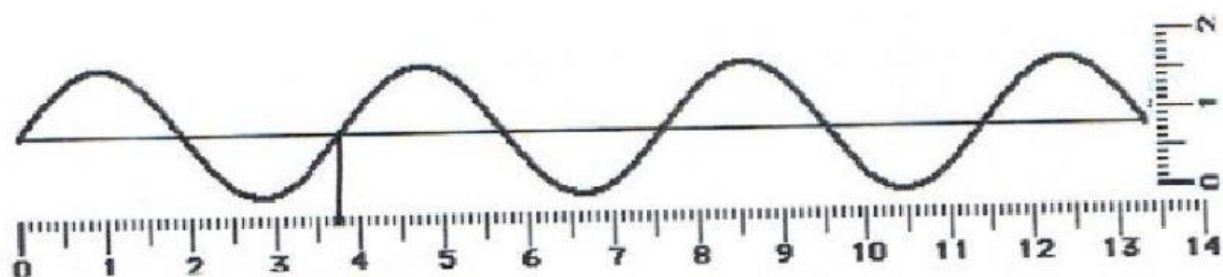
(i) _____	=	crest
(ii) _____	=	rarefaction
(iii) _____	=	line of origin or rest position
(iv) _____	=	amplitude
(v) _____	=	compression
(vi) _____	=	wavelength
(vii) _____	=	trough



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.