

Name _____

Class: 9 Advanced

1

A vibrating source sends a wave along a string.

Fig. 8.1 shows the wave on the string.

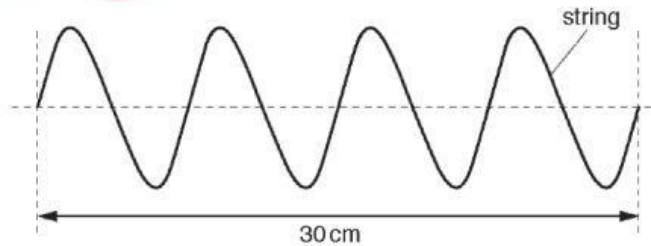


Fig. 8.1

The wave travels 4.0m in 4.0 s, based on the curve answer the following:

- a. Determine the number of waves send along the string.
..... [2]
- b. Calculate the wavelength of the wave using information from fig 8.1.
.....
..... [3]
- c. Calculate the Time Period of the wave.
.....
..... [2]
- d. Using the value of Time Period, determine the frequency of the wave.
.....
..... [3]
- e. Using the values of wavelength and frequency, determine wave speed.
.....
..... [3]

2

A long spring is fixed at one end, as shown in Fig. 5.2. The spring is moved towards and away from the fixed end, repeatedly. The compressions and rarefactions on the spring at a particular time can be seen.

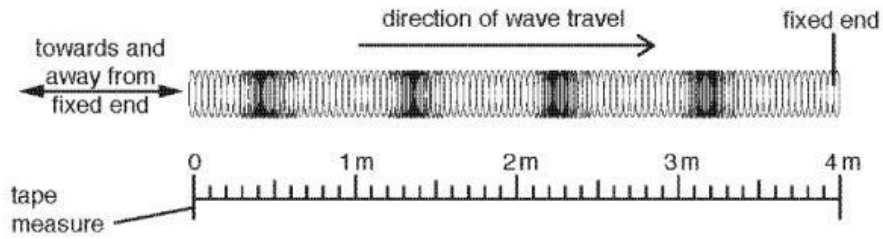


Fig. 5.2

- (i) State the type of wave in the spring.
.....[1]
- (ii) State one other example of this type of wave.
.....[1]

Fig. 5.1 shows a transverse wave. Four distances A, B, C and D are marked on the wave.

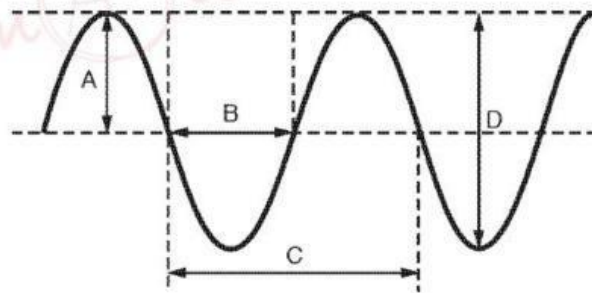


Fig. 5.1

- (iii) State the letter shows amplitude of the wave.
.....[1]
- (iii) State the letter shows wavelength of the wave.
.....[1]

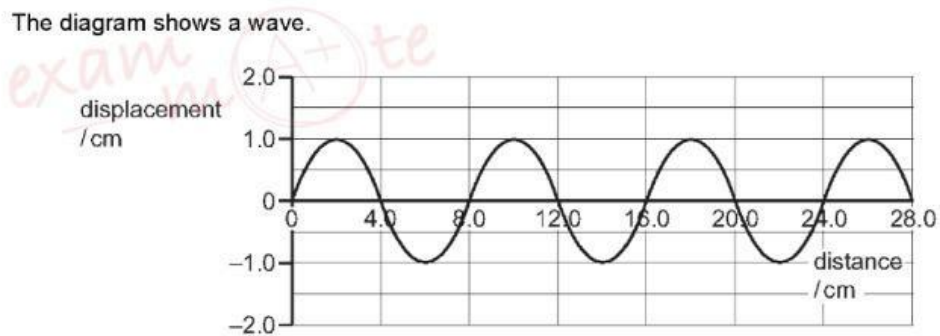
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3

Choose the correct answer:

[3]

The diagram shows a wave.



Which row is correct?

	amplitude of the wave / cm	wavelength of the wave / cm
A	1.0	4.0
B	1.0	8.0
C	2.0	4.0
D	2.0	8.0

Wave Speed $V = f \cdot \lambda$

Wave Speed = $\frac{\text{Distance Travelled by wave}}{\text{Time taken by the waves}}$

$T = 1/f$