3.6 Waves: 10-minute Pack

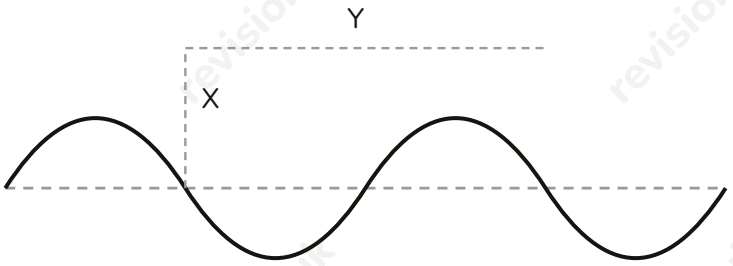
AQA 8463 · Calculator allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 A transverse wave is drawn on a diagram showing an undisturbed (equilibrium) line running through the middle of the wave. The vertical distance from the undisturbed line up to the peak of the wave is labelled X. The horizontal distance between two adjacent peaks is labelled Y.



undisturbed (equilibrium) line

(a) Which label, X or Y, shows the amplitude of the wave? **(1)**

(b) Which label, X or Y, shows the wavelength of the wave? **(1)**

(c) State the SI unit used to measure wavelength. **(1)**

(Total for Question 1 is 3 marks)

© Revision Library | revisionlibrary.co.uk

2 A wave is a way of transferring energy from one place to another.

(a) State what a wave transfers from one place to another, without transferring matter. **(1)**

(b) Describe the difference between a transverse wave and a longitudinal wave. **(2)**

(c) Give one example of a transverse wave and one example of a longitudinal wave. **(2)**

(Total for Question 2 is 5 marks)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 3.6 Waves: 10-minute Pack

Question 1

(a) X **B1**

(a) Answer: X

(b) Y **B1**

(b) Answer: Y

(c) metre, m **B1**

(c) Answer: Metre (m)

Question 2

(a) energy (accept information), oe **B1**

(a) Answer: Energy.

(b) in a transverse wave, the particles/oscillations are at right angles (perpendicular) to the direction of energy transfer, oe **B1**

(b) in a longitudinal wave, the particles/oscillations are parallel to (in the same direction as) the direction of energy transfer, oe **B1**

(b) Answer: In a transverse wave, the vibrations are at right angles to the direction of energy transfer. In a longitudinal wave, the vibrations are parallel to (along) the direction of energy transfer.

(c) transverse example, e.g. light/electromagnetic waves, or a water ripple **B1**

(c) longitudinal example, e.g. sound waves **B1**

(c) Answer: Transverse: light (or a water ripple). Longitudinal: sound.

© Revision Library | revisionlibrary.co.uk