

Refraction & Lenses

Question Paper 2

Level	Edexcel
Subject	Physics
Exam Board	GCSE(9-1)
Topic	Light & The Electromagnetic Spectrum
Sub Topic	Refraction and Lenses
Booklet	Question Paper 2

Time Allowed: 29 minutes

Score: /24

Percentage: /100

(c) The distance between the Earth and the Sun is 1.50×10^{11} m.

Light takes 500 s to travel from the Sun to the Earth.

The wavelength of red light is 670 nm.

Calculate the frequency of red light, using only the data provided.

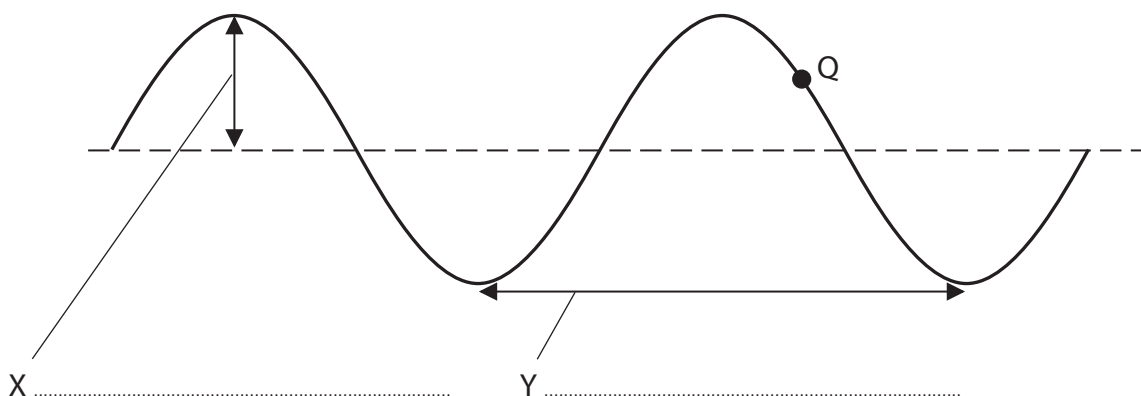
(4)

frequency = Hz

(Total for Question 9 = 12 marks)

Waves in action

2 (a) The diagram shows a transverse wave.



(i) Use words from the box to label the distances X and Y.

amplitude frequency magnification speed wavelength

(2)

(ii) Q is a particle in the wave.

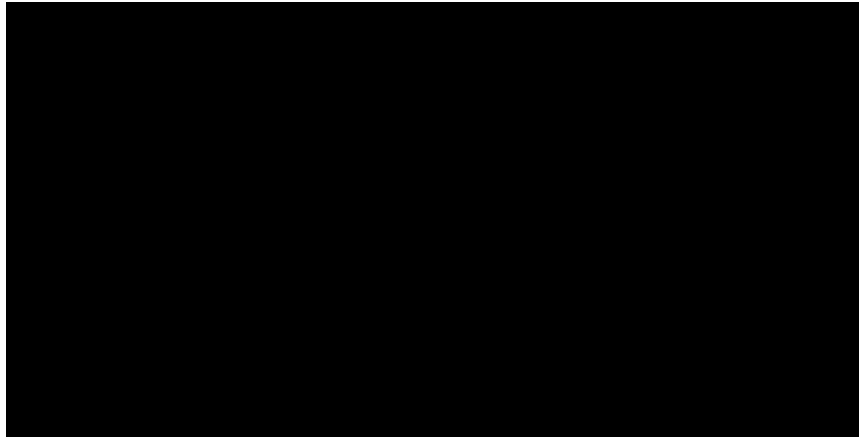
Which of these shows the way in which particle Q moves?

Put a cross (☒) in the box next to your answer.

(1)

- A
- B
- C
- D

(b) The photographs show a refracting telescope and a reflecting telescope.



refracting telescope

reflecting telescope

Both telescopes are used to form an image of a distant object.

(i) The two types of telescope form their images of a distant object in different ways.

A refracting telescope uses a converging lens to form an image of a distant object.

Describe how a reflecting telescope forms an image of a distant object.

(2)

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(ii) Both telescopes use a converging lens as an eyepiece.

State what the eyepiece of a telescope is intended to do to the image.

(1)

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