

1. 0625/11.21/O/N/19/No.23,22

The diagram shows the image of a clock in a plane mirror.



Which is the actual time?

- A** 04:15 **B** 04:45 **C** 07:15 **D** 07:45

2. 0625/11/O/N/19/No.24

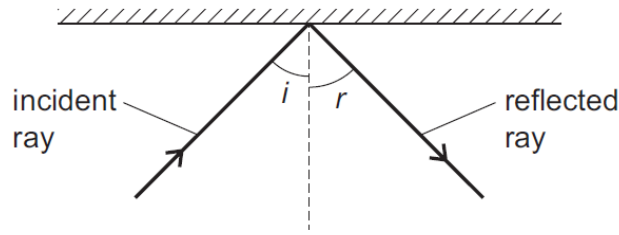
Total internal reflection may occur when light reaches an air-glass boundary.

Under which conditions is light totally internally reflected?

	medium in which light travels towards the boundary	angle of incidence
A	air	greater than the critical angle
B	air	less than the critical angle
C	glass	greater than the critical angle
D	glass	less than the critical angle

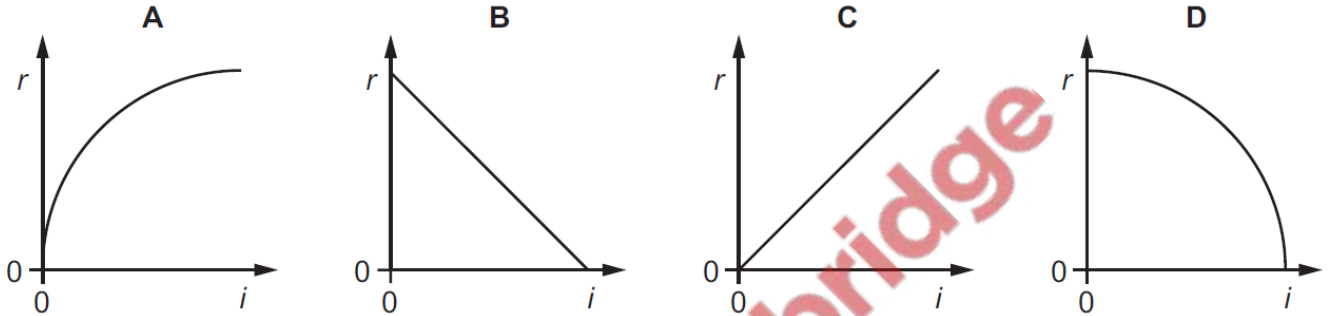
3. 0625/12/22/O/N/19/No.23

A ray of light is incident on a plane mirror. A student measures the angle of incidence i and the angle of reflection r .



The student varies the angle of incidence and then plots a graph of r against i .

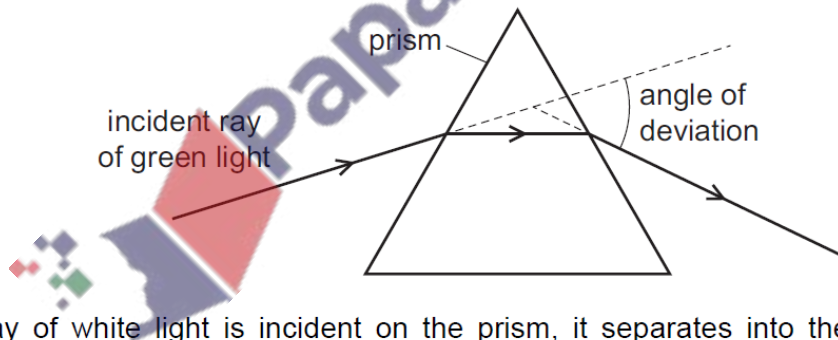
What does the graph look like?



4. 0625/12/O/N/19/No.24

The diagram shows the path of a ray of green light through a glass prism.

The angle of deviation is the angle between the incident ray and the ray leaving the prism.



When a ray of white light is incident on the prism, it separates into the colours of the visible spectrum.

What is the name of this effect and which colour of light has the smallest angle of deviation?

	name of effect	colour with smallest angle of deviation
A	diffraction	red
B	diffraction	violet
C	dispersion	red
D	dispersion	violet

5. 0625/13.23/O/N/19/No.23.22

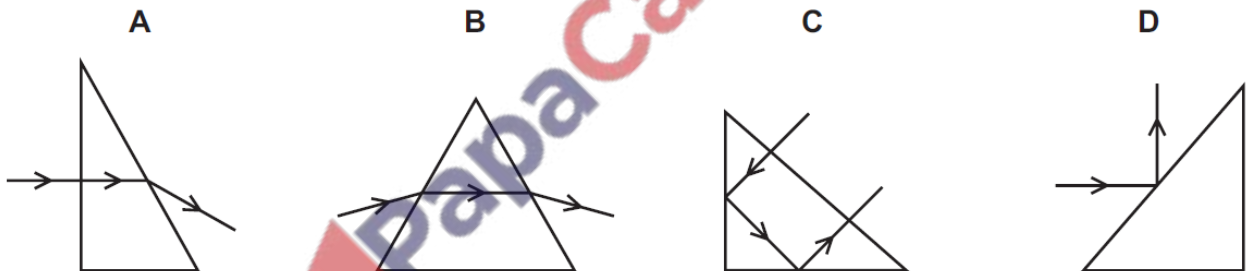
A person stands 1.0 m in front of a plane mirror. The mirror is moved away from the person at a speed of 1.0 m/s.

Which statement is correct?

- A The image moves away from the person at a speed of 1.0 m/s.
- B The image moves away from the person at a speed of 2.0 m/s.
- C The image moves towards the person at a speed of 1.0 m/s.
- D The image moves towards the person at a speed of 2.0 m/s.

6. 0625/13/O/N/19/No.24

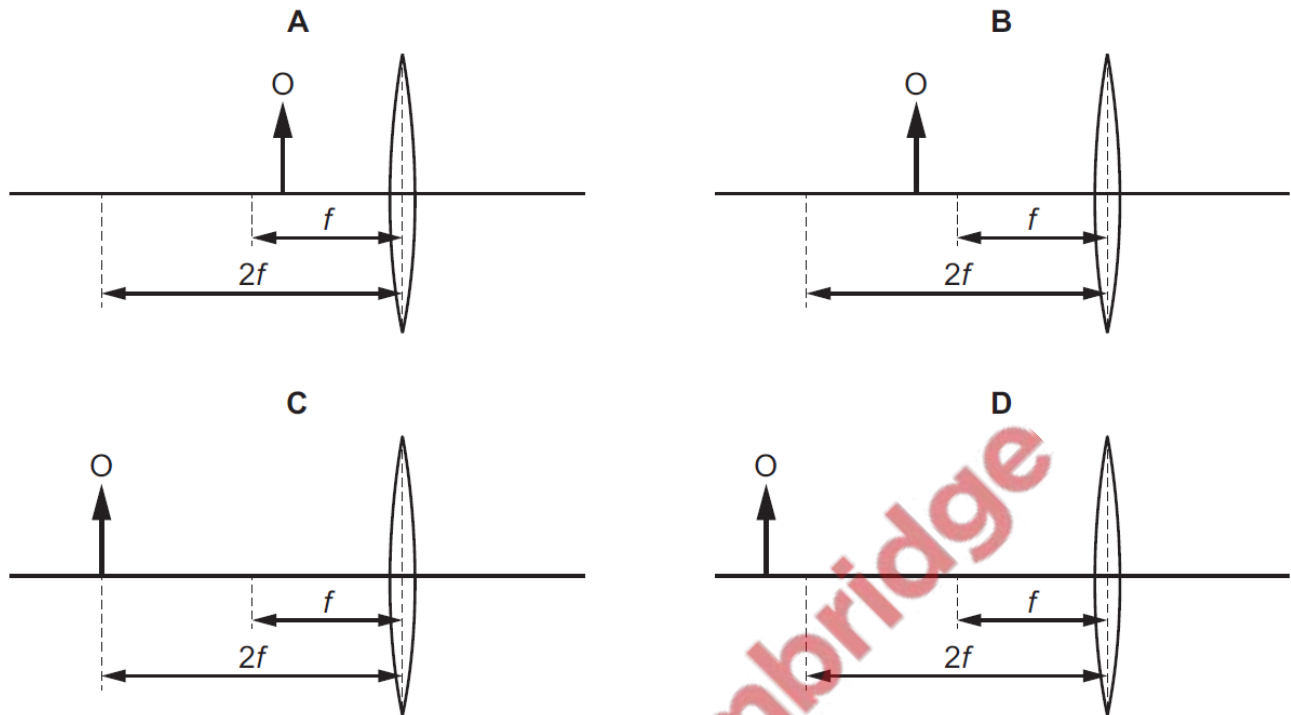
Which diagram shows total internal reflection of light by a glass prism?



7. 0625/21/O/N/19/No.23

A converging lens produces an image of an object O. The focal length of the lens is f .

Which position of the object produces a virtual image?



8. 0625/22/O/N/19/No.24

What is monochromatic light?

- A light of a single amplitude
- B light of a single frequency
- C light of more than one colour
- D light which travels with constant velocity

9. 0625/23/O/N/19/No.23

White light is refracted and dispersed when it enters a glass prism from air.

Which colour has the lowest speed as it moves through the glass prism?

- A blue light
- B orange light
- C red light
- D violet light

