

On your answer sheet, write in or circle the correct letter for each question.

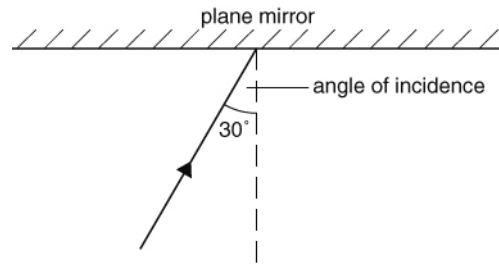
8Ja

- 1 Which of these statements is true?
 - A Light travels in straight lines.
 - B Light is stopped when it meets a solid object.
 - C Light does not travel in straight lines.
 - D Light will only travel for about 2000 km before it stops.
- 2 Which of these statements is **not** true?
 - A Opaque objects reflect or absorb light.
 - B Transparent objects let light pass through them.
 - C Translucent objects scatter the light that passes through them.
 - D Translucent objects do not reflect light.
- 3 Which phrase best completes the following sentence? We can read a book because:
 - A it is luminous.
 - B a light shines on it
 - C light is reflected by the book and enters our eyes.
 - D light from our eyes shines on the book.
- 4 Which statement is true?
 - A Sound travels faster than light.
 - B Light does not travel. It is either on or off.
 - C Light travels faster than sound.
 - D Light and sound travel at the same speed.

8Jb

- 1 Which of these statements is true?
 - A Light bounces evenly off rough surfaces.
 - B Light bounces evenly off smooth surfaces such as mirrors.
 - C Light bounces off mirrors in all directions.
 - D Light does not bounce off mirrors.

- 2 A plane mirror is:
 - A a flat mirror.
 - B a curved mirror.
 - C a shiny mirror.
 - D a mirror used in aeroplanes.
- 3 How big will the angle of reflection be?

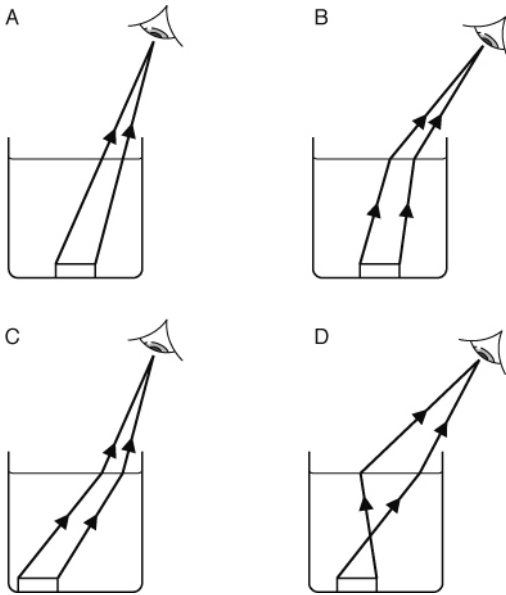


- A 20°
 - B 40°
 - C 30°
 - D 60°
- 4 Your image in a mirror:
 - A is always smaller than you
 - B is upside down.
 - C is always bigger than you.
 - D seems to be behind the mirror.

8Jc

- 1 Refraction is what happens when light:
 - A hits an opaque object.
 - B bounces off a mirror.
 - C is scattered unevenly by a rough surface.
 - D changes direction as it goes from one substance into another.
- 2 Refraction occurs because:
 - A light speeds up when it goes from air to glass or water.
 - B light slows down when it goes from air to glass or water.
 - C light stops when it goes from air to glass or water.
 - D light reflects inside transparent materials.

3 Which diagram shows the correct rays?



4 Why does a lens change the path of light?

- A Light changes direction when it goes into the lens and when it comes out of it.
- B Light changes direction in the centre of the lens.
- C Light is reflected by the surface of the lens.
- D Light travels faster in glass than it does in air.

8Jd

- 1 Which part of a camera changes energy transferred by light into electrical signals?
 - A sensor
 - B lens
 - C shutter
 - D memory card
- 2 Which of these parts of the eye are transparent?
 - A lens only
 - B lens and retina
 - C lens and cornea
 - D lens and iris
- 3 Which statement is *not* correct?
 - A Our retinas have rod cells and cone cells.
 - B Rod cells detect different colours.

- C There are three types of cone cells that detect red, blue and green light.
- D Cells in the retina convert energy transferred by light into nerve impulses.

4 Which of these camera parts does **not** have an equivalent in the eye?

- A aperture
- B shutter
- C sensor
- D lens

8Je

- 1 Which statement is *not* true?
 - A A rainbow is a spectrum of colours.
 - B White light is made up of many colours.
 - C A spectrum can only be made using paints.
 - D A prism can split white light into a spectrum.
- 2 A red filter:
 - A absorbs red light.
 - B lets through all colours of light.
 - C only lets red light through.
 - D changes all the colours into red light.
- 3 Blue objects look blue because:
 - A they reflect all colours.
 - B they refract all colours.
 - C they absorb blue light.
 - D they reflect blue light.
- 4 Danny is wearing white shorts and a red shirt. Which statement is most likely to be true?
 - A In blue light, his shorts look blue and his shirt looks black.
 - B In blue light, his shorts look blue and his shirt looks red.
 - C In red light, his shorts look red and his shirt looks black.
 - D In green light, his shorts look red and his shirt looks yellow.