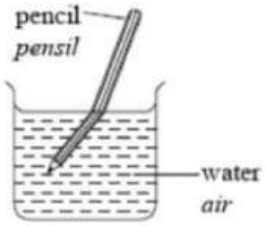
1. The diagram below shows a pencil which appears bent when submerged in water.
Rajah di bawah menunjukkan sebatang pensel yang kelihatan bengkok apabila terenda lalam air.



What makes the pencil look bent?
Apakah yang menyebabkan pensel itu kelihatan bengkok?

- A Addition of light
  Panambahan cahaya
- B Diffraction of light
  Pembelauan cahaya
- C Refraction of light
  Pembiasan cahaya
- D Reflection of light
  Pantulan cahaya

2. The diagram below shows a boy standing in front of a mirror.
Rajah di bawah menunjukkan seorang budak lelaki berdiri di hadapan cermin.

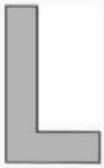
What type of image is formed on the mirror?
Apakah jenis imej yang terbentuk pada cermin tersebut?

- A Real image
  Imej sahih
- B Virtual image
  Imej maya
- C Inverted image
  Imej songsang
- D Large image
  Imej besar

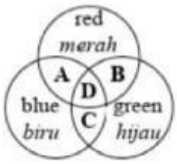
LIVEWORKSHEETS

3. The diagram below shows an image produced by an object placed in front of a plane mirror.
Rajah di bawah menunjukkan imej yang dihasilkan oleh objek yang diletakkan di hadapan sebuah cermin satah.

Which of the following is the object?
Antara yang berikut, yang manakah objek tersebut?

- A 
- B
- C
- D

4. The diagram below shows the overlapping of three coloured lights.
Rajah di bawah menunjukkan pertindihan tiga cahaya berwarna.



Which of the areas labelled **A**, **B**, **C** or **D**, is magenta?
Antara kawasan yang berlabel **A**, **B**, **C** *atau* **D**, *yang manakah berwarna magenta?*

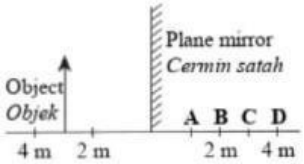
- A
- B
- C
- D

5. A student stands 50 cm in front of a plane mirror. He then walks 20 cm towards the mirror. What is the distance between the image of the student and the plane mirror?
Seorang murid berdiri 50 cm di hadapan satu cermin satah. Dia kemudiannya berjalan 20 cm ke arah cermin itu. Berapakah jarak antara imej murid itu dengan cermin satah?

- **A** 20 cm
- **B** 30 cm
- **C** 100 cm
- **D** 140 cm

LIVEWORKSHEETS

6. The diagram below shows the position of an object in front of a plane mirror.
Rajah di bawah menunjukkan kedudukan objek di hadapan sebuah cermin satah.



Which position **A**, **B**, **C** or **D**, is the position of the image?
Antara **A**, **B**, **C** *dan* **D**, *yang manakah kedudukan imej itu?*

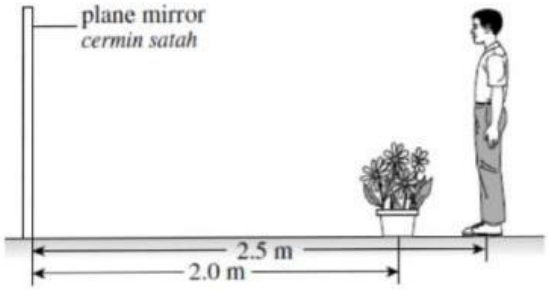
- ◯ **A**
- ◯ **B**
- ◯ **C**
- ◯ **D**

7. The diagram below shows an image of a boy formed in a plane mirror.
Rajah di bawah menunjukkan satu imej seorang budak lelaki terbentuk pada cermin satah.

What is the characteristic of the image that is shown above?
Apakah ciri imej yang ditunjukkan di atas?

- ◯ **A** Real
  Nyata
- ◯ **B** Smaller than the object
  Lebih kecil daripada objek
- ◯ **C** Laterally inverted
  Songsang sisi
- ◯ **D** Larger than the object
  Lebih besar daripada objek

8. The diagram below shows the position of a boy, a flower pot and a plane mirror.
Rajah di bawah menunjukkan kedudukan seorang budak lelaki, sebuah pasu bunga dan sekeping cermin satah.



The boy moves 0.5 m backwards. What is the distance between the flower pot and the image of the boy?
Budak lelaki itu bergerak 0.5 m *ke belakang. Berapakah jarak antara pasu bunga dengan imej budak lelaki itu?*

- ◯ **A** 1.0 m
- ◯ **B** 5.0 m
- ◯ **C** 6.0 m
- ◯ **D** 8.0 m

LIVEWORKSHEETS

9. What colour is most refracted in the formation of a rainbow?
Apakah warna yang paling banyak dibiaskan dalam pembentukan pelangi?

- A Red
  Merah
- B Green
  Hijau
- C Violet
  Ungu
- D Blue
  Biru

10. Which of the following devices works on the same principle as a periscope?
Antara alat berikut, yang manakah berfungsi dengan prinsip yang sama seperti periskop?

- A A rear-view mirror
  Cermin pandang belakang
- B Microscope
  Mikroskop
- C Spectacles
  Cermin mata
- D Magnifying glass
  Kanta pembesar

11. Which of the following is correct about addition and subtraction of light?
Antara yang berikut, yang manakah benar tentang penambahan dan penolakan cahaya?

- A Involves primary and secondary colours.
  Melibatkan warna primer dan warna sekunder.
- B Subtraction of lights produce white light by using colour filters.
  Penolakan cahaya menghasilkan cahaya putih menggunakan penapis warna.
- C Mixing lights of secondary colours to produce lights of primary colours.
  Menggabungkan cahaya warna sekunder untuk menghasilkan cahaya warna primer.
- D Addition of lights of all primary colours and two secondary colours do not produce white light.
  Penambahan cahaya semua warna primer dan dua warna sekunder tidak menghasilkan cahaya putih.

12. Antara yang berikut, yang manakah **bukan** ciri imej sebuah cermin cembung?
Which of the following is **not** *a characteristic of the image of a convex mirror?*

- A Upright
  Tegak
- B Diminished
  Diperkecil
- C Real
  Nyata
- D Virtual
  Maya

13. Which of the following is one of the characteristics of the image formed by a plane mirror?
Antara yang berikut, yang manakah merupakan salah satu ciri imej yang terbentuk oleh cermin satah?

- A Laterally inverted
  Songsang sisi
- B Bigger than the object
  Lebih besar daripada objek
- C Smaller than the object
  Lebih kecil daripada objek
- D Real image
  Imej sahih

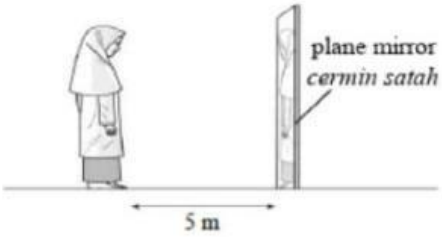
LIVEWORKSHEETS

14. The diagram below shows yellow light being shone on a red shirt.
Rajah di bawah menunjukkan cahaya kuning yang disuluh pada baju merah.

To the observer, the shirt would appear...
Bagi pemerhati, baju itu kelihatan...

- **A** red.
  merah.
- **B** black.
  hitam.
- **C** white.
  putih.
- **D** yellow.
  kuning.

15. The diagram below shows a girl standing in front of a plane mirror.
Rajah di bawah menunjukkan seorang budak perempuan berdiri di hadapan sebuah cermin satah.



The girl then moves 2 m forward. What is the distance between the girl and her image?
Budak perempuan itu kemudiannya bergerak 2 m ke hadapan. Berapakah jarak di antara budak perempuan itu dengan imejnya?

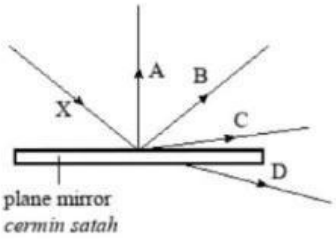
- **A** 4 m
- **B** 6 m
- **C** 10 m
- **D** 14 m

16. A plane mirror is usually used as a rear view mirror of a car because the image formed is
Cermin satah biasanya digunakan sebagai cermin pandang belakang bagi kereta kerana imej yang terbentuk adalah

- **A** magnified.
  diperbesar.
- **B** diminished.
  diperkecil.
- **C** real.
  nyata.
- **D** upright.
  tegak.

LIVEWORKSHEETS

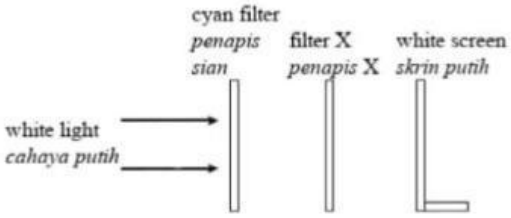
17. The diagram below shows a light ray X travelling towards a plane mirror.
Rajah di bawah menunjukkan satu sinar cahaya X bergerak ke arah satu cermin satah.



Which of the following is the reflected ray of X?
Antara yang berikut, yang manakah adalah sinar pantulan bagi X?

- A
- B
- C
- D

18. The diagram below shows the filtering of colour using a cyan filter and filter X.
Rajah di bawah menunjukkan penapisan warna dengan menggunakan penapis sian dan penapis X.



If the light on the white screen appears blue, the colour of filter X could be...
Jika cahaya pada skrin putih kelihatan biru, warna penapis X kemungkinan adalah...

- **A** red.
  merah.
- **B** blue.
  biru.
- **C** cyan.
  sian.
- **D** green.
  hijau.

19. The following list shows the sequence of colours in a rainbow.
Senarai yang berikut menunjukkan urutan warna pelangi.

Red, orange, M, N, O, indigo, violet
Merah, jingga, M, N, O, indigo, ungu

What colours are represented by M, N and O?
Apakah warna yang diwakili oleh M, N dan O?

- **A**

M	N	O
Green *Hijau*	Yellow *Kuning*	Blue *Biru*

- **B**

M	N	O
Blue *Biru*	Yellow *Kuning*	Green *Hijau*

- **C**

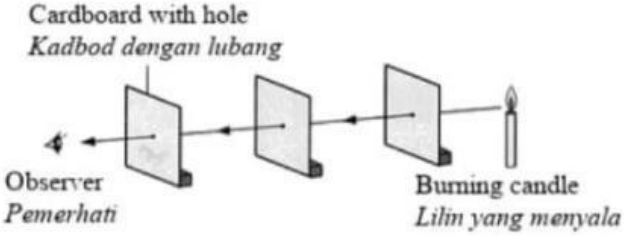
M	N	O
Blue *Biru*	Green *Hijau*	Yellow *Kuning*

- **D**

M	N	O
Yellow *Kuning*	Green *Hijau*	Blue *Biru*

LIVEWORKSHEETS

20. The diagram below shows an experiment.
Rajah di bawah menunjukkan suatu eksperimen.



The above experiment shows that light...
Eksperimen di atas menunjukkan bahawa cahaya...

- ◯ **A** can be scattered on the screen.
  boleh diserakkan pada skrin.
- ◯ **B** can be refracted.
  boleh dibiaskan.
- ◯ **C** can be stopped by an opaque object.
  boleh dihentikan oleh objek legap.
- ◯ **D** moves in a straight line.
  bergerak dalam garis lurus.

LIVEWORKSHEETS