Tarikh:

8.13 AKTIVITI PERBINCANGAN

Penambahan cahaya
The addition of light

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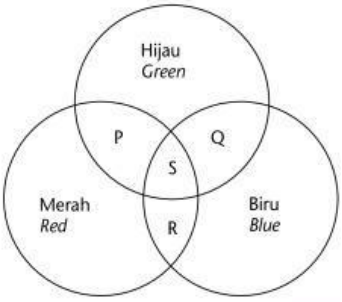
Buku teks m/s 241

Rajah di bawah menunjukkan tiga sinar cahaya berwarna berlainan yang bertindih.
The diagram below shows three different coloured light rays that are overlapping.



Galeri Info

Televisyen berwarna berfungsi atas dasar menambah warna-warna primer yang mempunyai keamatan yang berlainan untuk menghasilkan warna yang pelbagai.
A colour television functions on the basis of adding primary colours which have different intensities to produce various colours.

1 Tentukan warna yang kelihatan di kawasan P, Q, R dan S. TP2
Determine the colours which appear at areas P, Q, R and S.

P: _____ R: _____

Q: _____ S: _____

2 Nyatakan warna-warna primer cahaya./*State the primary colours of light.* TP1

_____

3 Nyatakan warna-warna sekunder cahaya. TP1
State the secondary colours of light.

_____

4 Nyatakan warna yang **tidak** dapat diperoleh daripada campuran warna-warna yang lain. TP1
*State the colours that **cannot** be obtained from a mixture of other colours.*

_____

5 Nyatakan warna yang hanya dapat diperoleh daripada penambahan warna-warna primer. TP1
State the colours that can only be obtained from the addition of primary colours.

_____

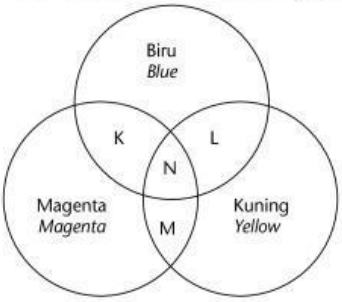
6

Proses pencampuran warna-warna primer cahaya untuk menghasilkan warna-warna sekunder cahaya.
The process of mixing primary coloured lights to produce secondary coloured lights.

Berdasarkan pernyataan yang diberikan, tandakan (✓) proses yang berlaku pada cahaya putih. TP1
Based on the statement given, tick (✓) the process that takes place on white light.

☐ Penolakan cahaya *Subtraction of light*
☐ Penyebaran cahaya *Dispersion of light*
☐ Penambahan cahaya *Addition of light*

7 Tentukan warna yang kelihatan di kawasan K, L, M dan N yang dihasilkan oleh penambahan warna-warna cahaya. TP2
Determine the colours that appear at areas K, L, M and N produced by the addition of coloured lights.



K: _____

L: _____

M: _____

N: _____

BAB 8

LIVEWORKSHEETS

Tarikh:

8.16 AKTIVITI PERBINCANGAN

Prinsip penolakan cahaya berwarna oleh objek
Principle of subtraction of coloured lights by objects

PBD
Masteri

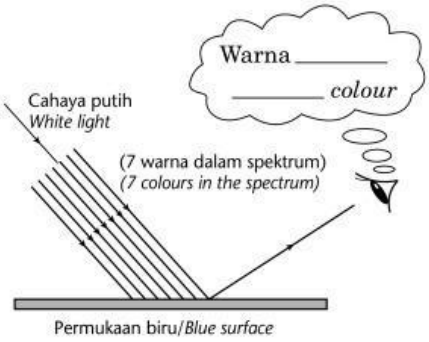
Buku teks m/s 243

1 Kaji pernyataan yang diberi./*Study the given statements.*

> Objek yang berwarna primer hanya memantulkan cahaya yang sama warna. Objek yang berwarna sekunder memantulkan warnanya sendiri dan juga warna-warna yang membentuknya.
> *Objects with primary colours reflect light of the same colour. Objects with secondary colours reflect their own colour and the constituent colours that make up the colour of the object.*

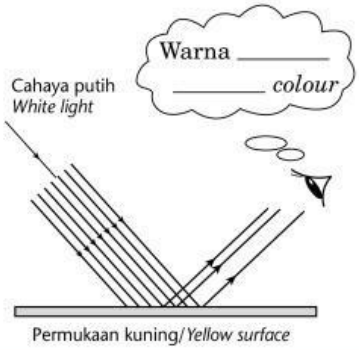
Berdasarkan pernyataan di atas, kaji rajah yang berikut tentang penglihatan objek berwarna dalam cahaya putih dan cahaya berwarna. Kemudian, tentukan warna cahaya yang terbentuk dan berikan penerangan. TP2
Based on the above statement, study the following diagrams on the appearance of coloured objects under white and coloured lights. Then, determine the coloured lights formed and give explanations.

(a)



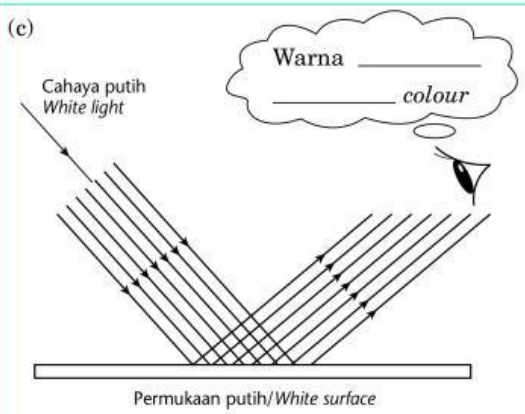
Objek biru hanya memantulkan cahaya _____. Cahaya berwarna yang lain _____.
A blue object only reflects _____ light. Other coloured lights are _____.

(b)



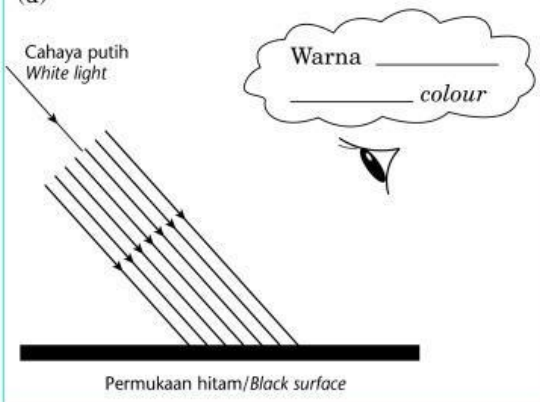
Objek kuning memantulkan cahaya _____, _____ dan _____. Cahaya berwarna yang lain _____.
A yellow object reflects _____, _____ and _____ lights. Other coloured lights are _____.

(c)



Objek putih _____ warna dalam cahaya putih.
A white object _____ the colours in white light.

(d)



Objek hitam _____ warna dalam cahaya putih.
A black object _____ the colours in white light.

BAB 8

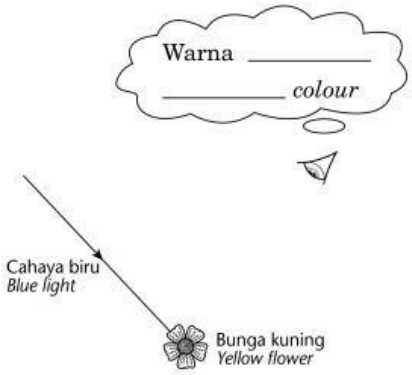
LIVEWORKSHEETS

2 Kaji pernyataan yang diberi.
Study the given statements.

> Warna sesuatu objek bergantung pada warna cahaya yang kena padanya, warna cahaya yang diserap dan warna cahaya yang dipantulkan.
> *The colour of an object depends on the colour of the light that strikes it, the colours of the light absorbed and the colour of the light reflected.*

Berdasarkan pernyataan di atas, tentukan warna cahaya yang dilihat dan berikan penerangan. TP2
Based on the above statement, determine the coloured lights seen and give explanations.

(a)

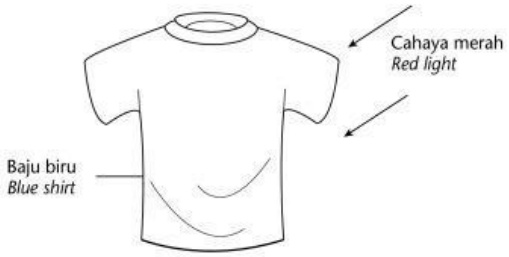


Bunga kuning kelihatan _____ kerana bunga kuning _____ cahaya biru. _____ dipantulkan.
The yellow flower appears _____ because the yellow flower _____ blue light. _____ is reflected.

(b)

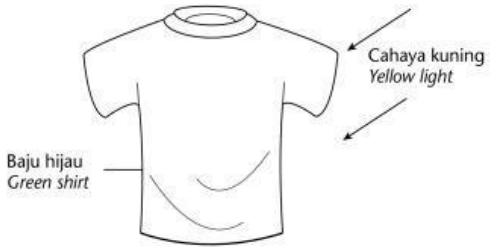
Baju sian kelihatan _____ kerana baju sian _____ cahaya hijau dalam cahaya kuning. Cahaya berwarna yang lain _____.
The cyan shirt appears _____ because the cyan shirt _____ green light in yellow light. Other coloured lights are _____

(c)



Baju biru kelihatan _____ kerana baju biru _____ cahaya merah. _____ dipantulkan.
The blue shirt appears _____ because the blue shirt _____ red light. _____ is reflected.

(d)



Baju hijau kelihatan _____ kerana baju hijau _____ cahaya hijau dalam cahaya kuning. Cahaya berwarna yang lain _____.
The green shirt appears _____ because the green shirt _____ green light in yellow light. Other coloured lights are _____.

BAB 8

LIVEWORKSHEETS