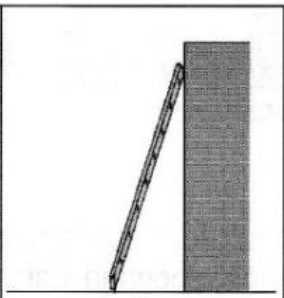
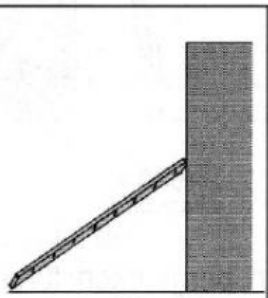
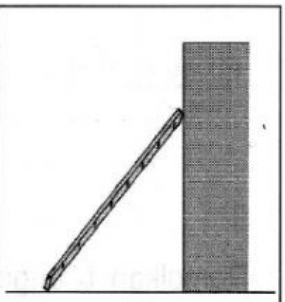
1 Jadual 1 menunjukkan bilangan pergerakan turun naik dada Jaspreet dalam masa 1 minit semasa menaiki tangga yang disandarkan ke dinding dengan kecondongan X, Y dan Z.
Table 1 shows the number of chest movements up and down for Jaspreet in 1 minute while climbing the ladder that was leaned against the wall with inclination of X, Y and Z.

Kecondongan *Inclination*	 X	 Y	 Z
Bilangan pergerakan turun naik dada dalam satu minit *Number of chest movements up and down in one minute*	33	19	25

Jadual 1
Table 1

(a) Berdasarkan Jadual 1, susun kecondongan X, Y dan Z mengikut keperluan oksigen yang digunakan oleh Jaspreet dari paling sedikit ke paling banyak.
Based on Table 1, arrange inclinations of X, Y and Z according to the oxygen needed by Jaspreet from the least to the most.

Keperluan oksigen yang digunakan oleh Jaspreet *Oxygen needed by Jaspreet*		
Paling sedikit *Least*	Sedikit *Less*	Paling banyak *Most*
Kecondongan *Inclination of*	Kecondongan *Inclination of*	Kecondongan *Inclination of*
(i) _____	(ii) _____	(iii) _____
_____	_____	_____
_____	_____	_____

[2 markah]
[2 *marks*]

(*b*) Jaspreet menaiki tangga yang sama pada kecondongan M seperti yang ditunjukkan dalam Rajah I.
Jaspreet climbed the same ladder at inclination of M as shown in Diagram 1.

Rajah 1
Diagram 1

(i) Ramalkan bilangan pergerakan turun naik dadanya dalam masa I minit.
Predict the number of his chest movements up and down in 1 minute.

_____

_____

[I markah]
[1 *mark*]

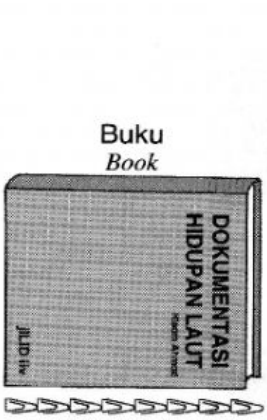
(ii) Mengapakah bilangan pergerakan turun naik dada Jaspreet dalam masa I minit berbeza antara Rajah I dengan Jadual I?
Why do the number of chest movements up and down for Jaspreet in 1 minute differ between Diagram 1 and Table 1?

_____

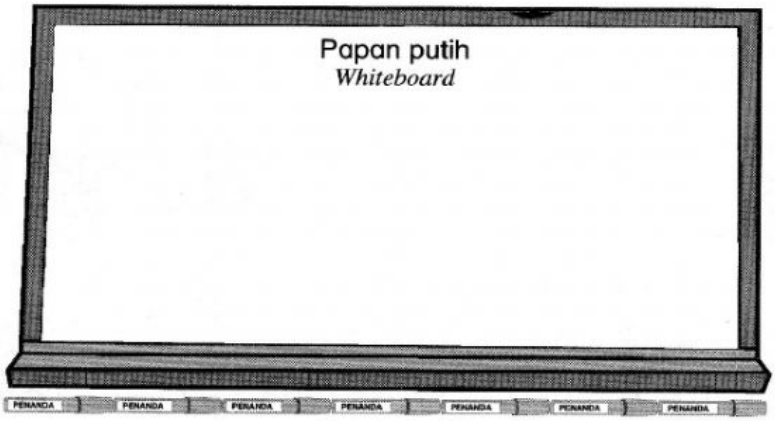
_____

[I markah]
[1 *mark*]

2 Dalam penyiasatan di bawah, sekumpulan murid hendak mengukur panjang objek dalam Rajah 2.1(a) dan 2.1(b).
In the investigation below, a group of pupils want to measure length of the objects in Diagram 2.1(a) and 2.2(b).



Rajah 2.1(a)
Diagram 2.1(a)



Rajah 2.1(b)
Diagram 2.1(b)

(a) Hitung panjang buku dan papan putih di atas.
Calculate length of the book and white board above.

(i) Panjang buku : _____ klip kertas
Length of book : _____ *paper clips*

(ii) Panjang papan putih : _____ penanda
Length of whiteboard : _____ *markers*

[2 markah]
[2 *marks*]

(b) Padankan simbol dengan **betul**.
*Match the symbols **correctly**.*

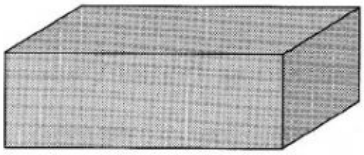
(i) Luas *Area* — cm^3

(ii) Isi padu *Volume* — cm^2

[1 markah]
[1 *mark*]

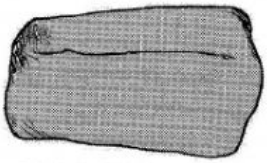
KBAT

(c) Raju hendak menghitung isi padu objek dalam Rajah 2.2(a) dan 2.2(b).
Raju wants to calculate volume of the objects in Diagram 2.2(a) and 2.2(b).



Objek sekata
Regular object

Rajah 2.2(a)
Diagram 2.2(a)



Objek tidak sekata
Irregular object

Rajah 2.2(b)
Diagram 2.2(b)

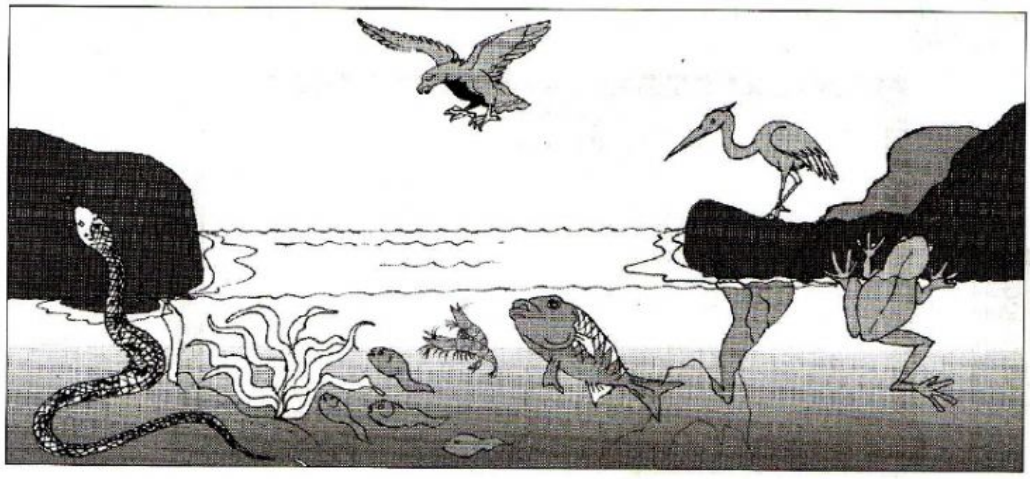
Bagaimanakah cara untuk menghitung kedua-dua objek tersebut?
How to calculate the volume of both objects?

_____

_____

[2 markah]
[2 *marks*]

3 Rajah 3 menunjukkan haiwan-haiwan di habitat M.
Diagram 3 shows animals in habitat M.



Rajah 3
Diagram 3

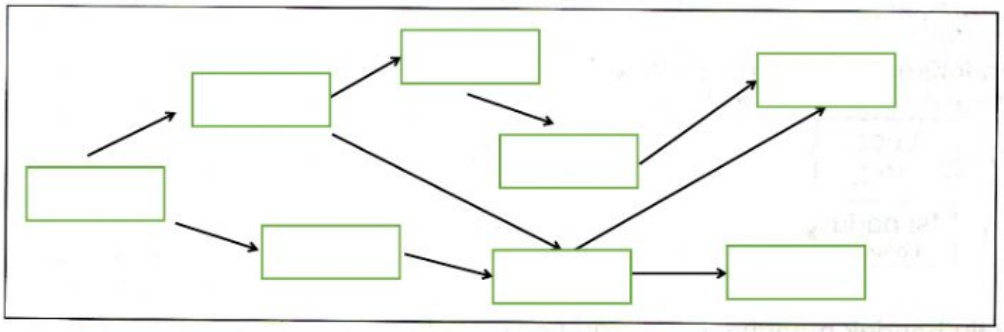
(a) Nyatakan pengeluar di habitat itu.
State the producer in the habitat.

_____

[1 markah]
[1 *mark*]

(b) Bina **satu** siratan makanan yang mewakili hidupan di habitat ini.
*Build **one** food web that represents the living things in the habitat.*

Rumpai air
Bangau
Ikan
Ular



Udang
Berudu
Katak
Helang

[2 markah]
[2 *marks*]

KBAT

(c) Kolam itu tercemar ~~apabila~~ bahan buangan dari kilang berhampiran dibuang ke dalam kolam itu.
The pond is polluted when waste from the nearby factories being disposed into the pond.

(i) Apakah yang berlaku kepada bilangan bangau di habitat itu?
What will happen to the number of storks in the habitat?

_____

[1 markah]
[1 *mark*]

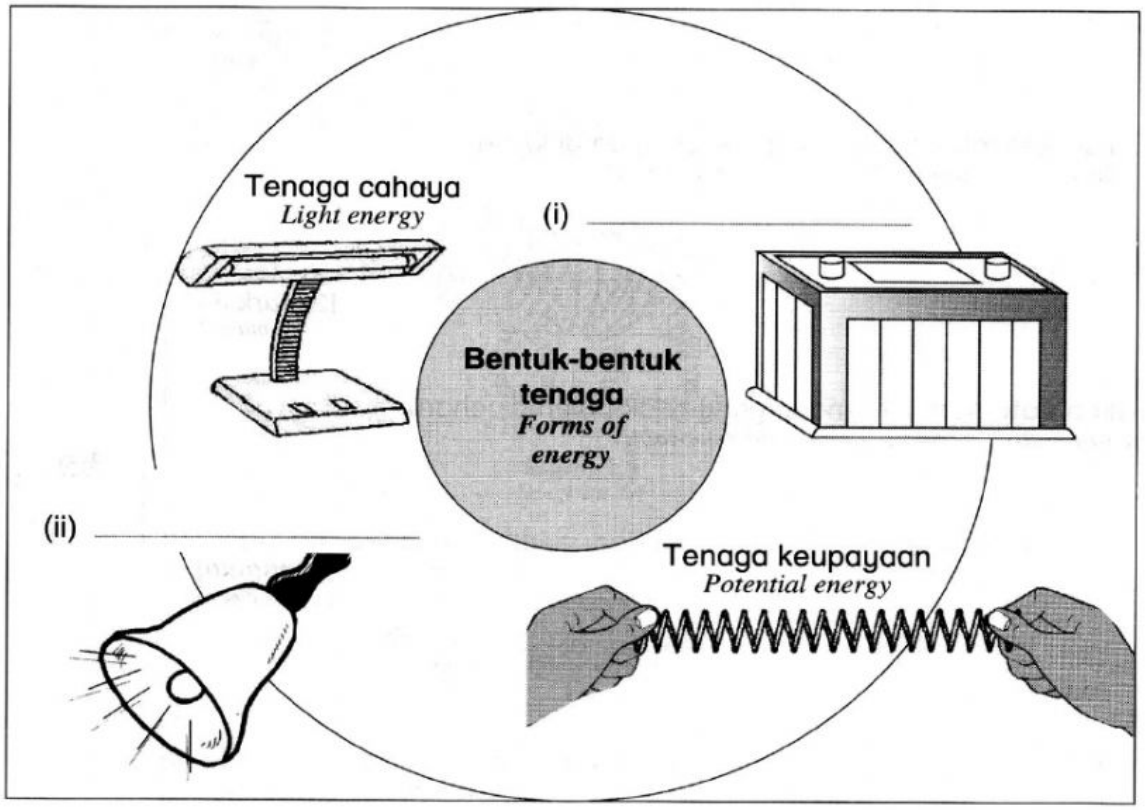
(ii) Tuliskan inferens.
Write the inference.

_____

[1 markah]
[1 *mark*]

4 Rajah 4.1 menunjukkan bentuk-bentuk tenaga.
Diagram 4.1 shows forms of energy.

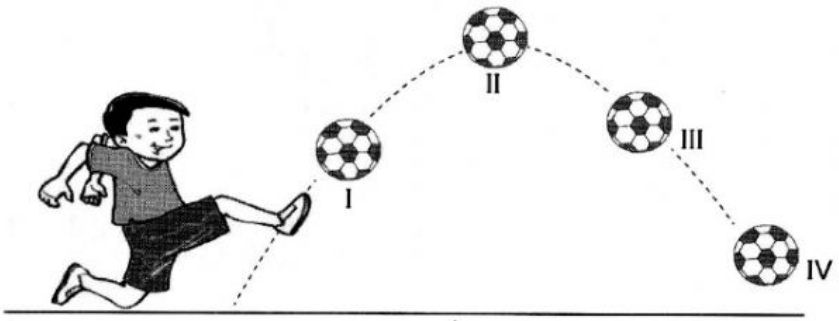
(a) Isikan Rajah 4.1 dengan bentuk tenaga.
Fill in Diagram 4.1 with form of energy.



Rajah 4.1
Diagram 4.1

[1 markah]
[1 *mark*]

(b) Dalam suatu penyiasatan, sebiji bola ditendang ke atas dan kemudian jatuh ke bawah. Pergerakan bola itu dilukis seperti dalam Rajah 4.2.
In an investigation, a ball is kicked up and then fall. Movement of the ball is drawn as in Diagram 4.2.



Rajah 4.2
Diagram 4.2

(i) Kedudukan bola yang manakah mempunyai tenaga kinetik yang paling tinggi?
Which position of the ball has the highest kinetic energy?

[1 markah]
[1 *mark*]

(ii) Tuliskan inferens kamu untuk jawapan di **4**(*b*)(i).
Write your inference for the answer in ***4****(b)(i).*

[2 markah]
[2 *marks*]

(*c*) Tuliskan **satu** sumber tenaga yang tidak boleh dibaharui.
Write ***one*** *source of energy that is non-renewable.*

[1 markah]
[1 *mark*]