

Bulatkan satu jawapan yang betul.  
Circle one correct answer.

1

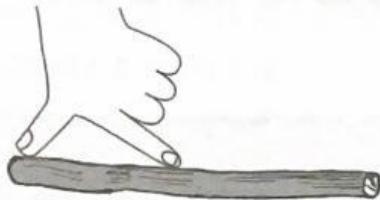


Warna bunga ini  
sangat terang.  
The colour of these  
flowers is so bright.

Berdasarkan rajah di atas, kemahiran  
proses sains yang digunakan ialah  
Based on the diagram above, the science process  
skill used is

- |                           |                                  |
|---------------------------|----------------------------------|
| A memerhati<br>observing  | C mengukur<br>measuring          |
| B mengelas<br>classifying | D berkomunikasi<br>communicating |

2



Berdasarkan rajah di atas, kemahiran  
proses sains yang digunakan ialah  
Based on the diagram above, the science process  
skill used is

- |                         |                                           |
|-------------------------|-------------------------------------------|
| A meramal<br>predicting | C membuat inferens<br>making an inference |
| B mengukur<br>measuring | D berkomunikasi<br>communicating          |

3



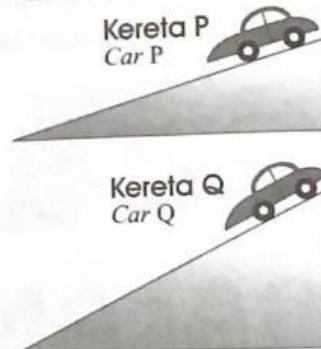
Ikan dan udang itu mati kerana  
air sungai dicemari sisa toksik.  
The fish and shrimp are dead because the river  
water is contaminated with toxic waste.

Berdasarkan rajah di atas, kemahiran  
proses sains yang digunakan ialah  
Based on the diagram above, the science process  
skill used is

- |                           |                                             |
|---------------------------|---------------------------------------------|
| A memerhati<br>observing  | C membuat inferens<br>making an inference   |
| B mengelas<br>classifying | D membuat kesimpulan<br>making a conclusion |

4

Eksperimen : Kereta P dan kereta Q  
dilepaskan serentak.  
Experiment : Car P and car Q are released  
simultaneously.



Kereta Q  
bergerak lebih  
laju berbanding  
kereta P.  
Car Q is moving  
faster than car P.

Berdasarkan rajah di atas, kemahiran  
proses sains yang digunakan ialah  
Based on the diagram above, the science process  
skill used is

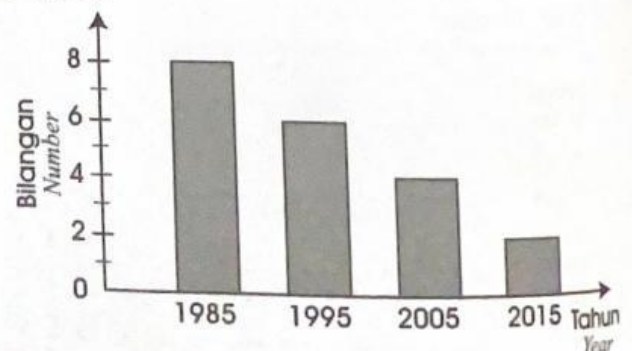
- |                          |                                            |
|--------------------------|--------------------------------------------|
| A memerhati<br>observing | C membuat inferens<br>making an inference  |
| B meramal<br>predicting  | D membuat hipotesis<br>making a hypothesis |

Soalan 5 hingga 7

Questions 5 to 7

Carta palang menunjukkan bilangan badak  
sumbu di hutan X.

The bar chart shows the number of rhinoceros in the  
forest X.



5 Pilih corak bilangan badak sumbu  
di hutan X.  
Choose the trend of the number of rhinoceros in  
forest X.

- |                          |                       |
|--------------------------|-----------------------|
| A Meningkat<br>Increase  | C Menurun<br>Decrease |
| B Mendatar<br>Horizontal | D Malar<br>Constant   |

- 6 Pilih inferens yang sesuai berdasarkan corak bilangan badak sumbu di hutan X.  
*Choose the suitable inference based on the trend of the number of rhinoceros in forest X.*

A Terlalu banyak makanan untuk badak sumbu di hutan X  
*Too much food for the rhinoceros in forest X*

B Hutan X adalah habitat yang sesuai untuk badak sumbu  
*Forest X is a suitable habitat for rhinoceros*

C Berlaku penebangan hutan yang tidak terkawal di hutan X  
*Uncontrolled deforestation occurs in forest X*

D Hutan X telah diwartakan sebagai hutan simpan  
*Forest X has been gazetted as forest reserve*

- 7 Ramalan yang manakah betul mengenai bilangan badak sumbu pada tahun 2025?  
*Which is the correct prediction of the number of rhinoceros in 2025?*

A 5                      C 20  
B 1                      D 6

- 8 Rina membuat penyiasatan di bawah.  
*Rina conducted an investigation below.*



Ketinggian anak pokok direkodkan setiap 2 hari seperti jadual di bawah.  
*The height of tree is recorded every 2 days as shown in the table below.*

| Hari<br>Day                | 2 | 4 | 6 | 8 | 10 |
|----------------------------|---|---|---|---|----|
| Tinggi (cm)<br>Height (cm) | 1 | 2 | 5 | 8 | 11 |

Berdasarkan penyiasatan di atas, pemerhatian yang betul ialah  
*Based on the investigation above, the correct observation is*

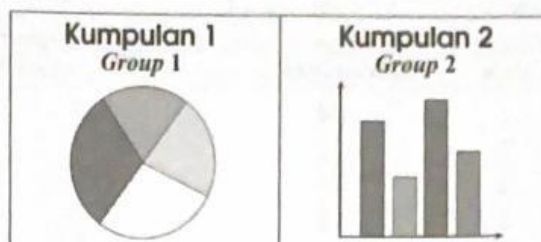
A tinggi pokok semakin menurun  
*the height of the tree is decreasing*

B tinggi pokok semakin meningkat  
*the height of the tree is increasing*

C tinggi pokok malar  
*the height of the tree is constant*

D tiada perubahan pada tinggi pokok  
*no changes on the height of the tree*

- 9 Dua kumpulan membentangkan hasil kajian seperti di bawah.  
*Two groups present the results of the research as below.*



Berdasarkan rajah di atas, kemahiran proses sains yang digunakan ialah

*Based on the diagram above, the science process skill used is*

A berkomunikasi      C membuat inferens  
*communicating      making an inference*

B meramal              D mengukur  
*predicting              measuring*

- 10 Sekumpulan murid menjalankan suatu eksperimen.

*A group of pupils conducted an experiment.*

Berikut adalah langkah-langkah mengeksperimen :  
*The following are the steps in experimenting:*

- 1 Mentafsir data  
*Interpret the data*
- 2 Membuat laporan eksperimen  
*Make a report of experiment*
- 3 Merancang eksperimen  
*Plan an experiment*
- 4 Mengumpul data  
*Collect data*
- 5 Membuat kesimpulan  
*Make a conclusion*

Susunan langkah-langkah yang manakah betul semasa kumpulan itu menjalankan eksperimen itu?

*Which of the following orders of the steps is correct when the group is running the experiment?*

- A 1 → 3 → 4 → 5 → 2
- B 2 → 4 → 1 → 3 → 5
- C 3 → 4 → 1 → 5 → 2
- D 2 → 5 → 1 → 4 → 3

### Soalan 11 dan 12

#### Questions 11 and 12

Suatu kajian dijalankan ke atas bilangan daun dan bilangan beluncas pada sebatang pokok.  
A study was conducted on the number of leaves and the number of caterpillars on a tree.

| Minggu<br>Week | Bilangan daun<br>Number of leaves | Bilangan beluncas<br>Number of caterpillars |
|----------------|-----------------------------------|---------------------------------------------|
| 1              | 24                                | 4                                           |
| 2              | 22                                | 5                                           |
| 3              | 21                                | 7                                           |
| 4              | 18                                | 9                                           |
| 5              | 16                                | 10                                          |

11 Pilih hipotesis yang sesuai.

Choose the suitable hypothesis.

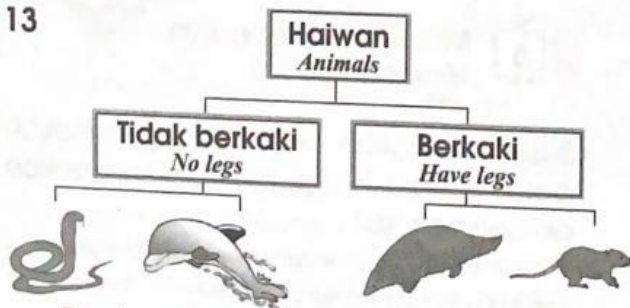
- A Semakin bertambah bilangan beluncas, semakin berkurang bilangan daun  
The greater the number of caterpillars, the lesser the number of leaves
- B Semakin bertambah bilangan beluncas, semakin bertambah bilangan daun  
The greater the number of caterpillars, the greater the number of leaves
- C Semakin berkurang bilangan beluncas, semakin berkurang bilangan daun  
The lesser the number of caterpillars, the lesser the number of leaves
- D Bilangan daun tidak berubah apabila bilangan beluncas bertambah  
The number of leaves does not change when the number of caterpillars increases

12 Jika seekor burung pipit dilepaskan di pokok itu, ramalkan bilangan beluncas selepas dua hari.

If a sparrow is released in the tree, predict the number of caterpillars after two days.

- A Bertambah  
Increases
- B Berkurang  
Decreases
- C Malar  
Constant
- D Tiada perubahan  
No changes

13

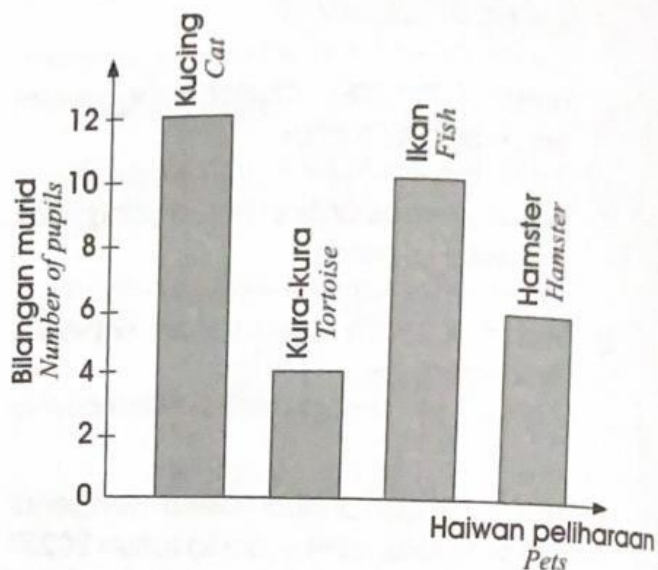


Berdasarkan carta di atas, kemahiran proses sains yang digunakan ialah  
Based on the chart above, the science process skills used is

- A memerhati  
observing
- B mengelas  
classifying
- C mengukur  
measuring
- D meramal  
predicting

14 Carta palang di bawah menunjukkan haiwan peliharaan murid-murid Tahun 4 Cerdik.

The bar chart below shows the pets of Year 4 Cerdik pupils.



Haiwan peliharaan yang paling banyak dipelihara oleh murid-murid Tahun 4 Cerdik ialah

The most popular pet of Year 4 Cerdik pupils is

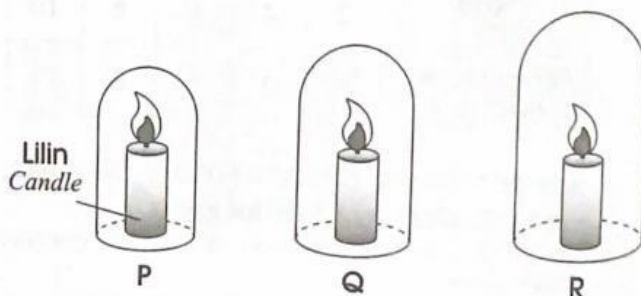
- A kucing  
cat
- B kura-kura  
tortoise
- C ikan  
fish
- D hamster  
hamster

### Soalan 15 dan 16

#### Questions 15 and 16

Anif bersama kumpulan Saintis Muda menjalankan penyiasatan di bawah. Lilin P, Q dan R diletakkan di dalam balang kaca yang berlainan saiz.

Anif with the Young Scientist group conducted the investigation below. Candles P, Q and R are placed in glass jars of different sizes.



#### Pemerhatian :

Lilin P padam terlebih dahulu, diikuti lilin Q dan lilin R.

#### Observation :

Candle P extinguished first, followed by candle Q and candle R.

15 Pemboleh ubah yang dimanipulasikan ialah \_\_\_\_\_.

The manipulated variable is \_\_\_\_\_.

- A saiz balang kaca  
the size of glass jar
- B masa lilin terpadam  
the time for the candle to extinguish
- C tinggi lilin  
the height of candle
- D saiz nyalaan api  
the size of flame

16 Pemboleh ubah yang bergerak balas ialah \_\_\_\_\_.

The responding variable is \_\_\_\_\_.

- A saiz balang kaca  
the size of glass jar
- B masa lilin terpadam  
the time for the candle to extinguish
- C tinggi lilin  
the height of candle
- D saiz nyalaan api  
the size of flame

17 Data menunjukkan keadaan cuaca pada bulan Jun dari 12 Jun hingga 21 Jun.

The data shows the weather condition in June from 12 June till 21 June.

| 12                                                                                                    | 13                                                                                                    | 14                                                                                                       | 15                                                                                                    | 16                                                                                                    |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <br>cerah<br>sunny | <br>cerah<br>sunny | <br>mendung<br>cloudy | <br>hujan<br>rain  | <br>hujan<br>rain  |
| 17                                                                                                    | 18                                                                                                    | 19                                                                                                       | 20                                                                                                    | 21                                                                                                    |
| <br>hujan<br>rain  | <br>cerah<br>sunny | <br>mendung<br>cloudy | <br>cerah<br>sunny | <br>cerah<br>sunny |

Bilangan hari hujan ialah

The number of rainy days is

- A 2
- B 3
- C 5
- D 6

18



Suzi memerhatikan perubahan saiz doh roti selama 30 minit. Apakah kemahiran proses sains yang digunakan oleh Suzi?  
Suzi observes the size changes of bread dough for 30 minutes. What is the science process skill used by Suzi?

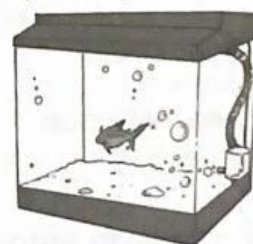
- A Mendefinisi secara operasi  
Defining operationally
- B Mengawal pemboleh ubah  
Controlling variables
- C Menggunakan perhubungan ruang dan masa  
Using space-time relationship
- D Mengukur dan menggunakan nombor  
Measuring and using numbers

Soalan 19 dan 20

Questions 19 and 20

Satu penyiasatan dijalankan seperti di bawah. Selepas seminggu, didapati ikan di dalam akuarium A masih hidup, manakala ikan di dalam akuarium B mati.

An investigation is carried out as below. After a week, it is found that the fish in aquarium A is still alive while the fish in aquarium B are dead.



Akuarium A  
Aquarium A



Akuarium B  
Aquarium B

19 Apakah pemboleh ubah yang dimanipulasikan?

What is the manipulated variable?

- A Saiz akuarium  
Size of aquarium
- B Keadaan ikan selepas seminggu  
Condition of fish after a week
- C Bilangan ikan  
Number of fish
- D Isi padu air  
Volume of water

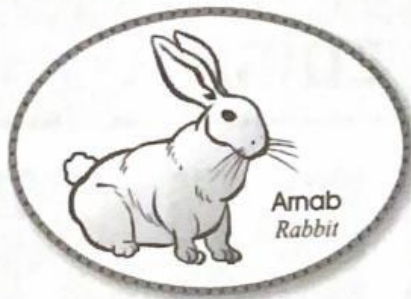
20 Apakah pemboleh ubah yang bergerak balas?

What is the responding variable?

- A Saiz akuarium  
Size of aquarium
- B Keadaan ikan selepas seminggu  
Condition of fish after a week
- C Bilangan ikan  
Number of fish
- D Isi padu air  
Volume of water

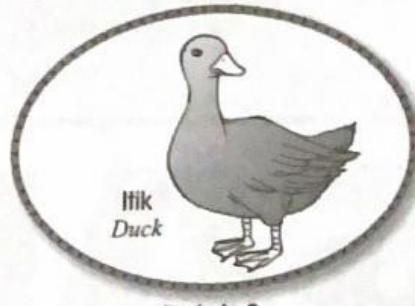
- 1 (a) Nyatakan persamaan dan perbezaan di antara Rajah 1 dengan Rajah 2.  
*State the similarities and differences between Diagram 1 and Diagram 2.*

(i)



Amab  
Rabbit

Rajah 1  
Diagram 1



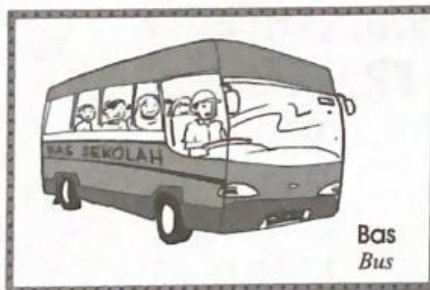
Itik  
Duck

Rajah 2  
Diagram 2

Persamaan :  
*Similarities :*

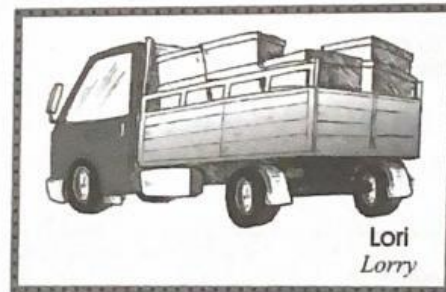
Perbezaan :  
*Differences :*

(ii)



Bas  
Bus

Rajah 1  
Diagram 1



Lori  
Lorry

Rajah 2  
Diagram 2

Persamaan :  
*Similarities :*

Perbezaan :  
*Differences :*

- (b) Apakah dua kemahiran proses sains yang digunakan di (a)?

Tandakan ☒ jawapan kamu di dalam ruang kosong.

What are the **two** science process skills used in (a)? Tick ☒ your answers in the blank space.

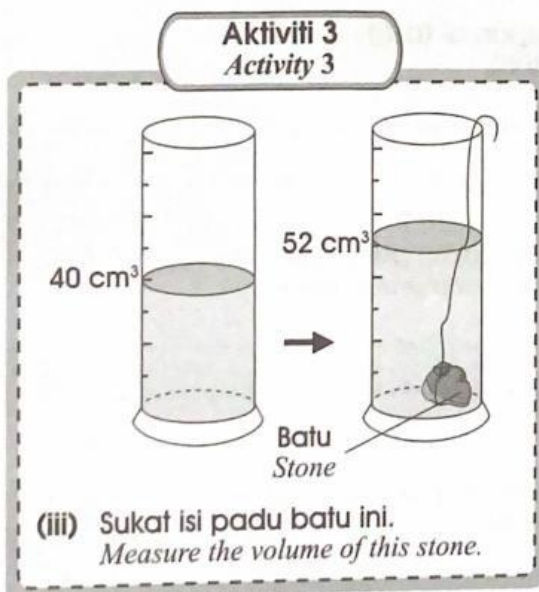
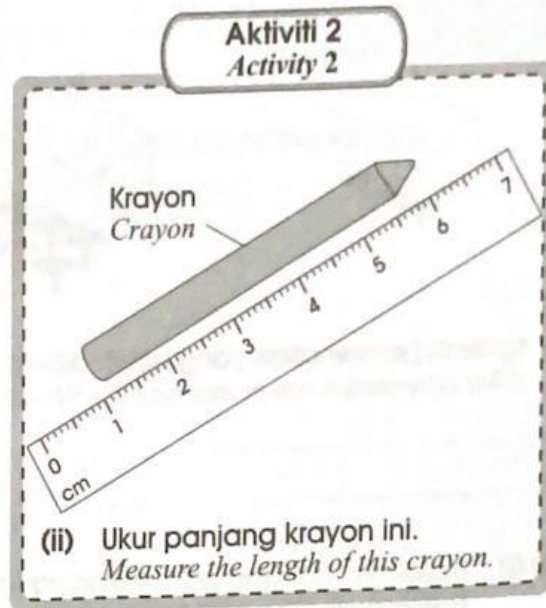
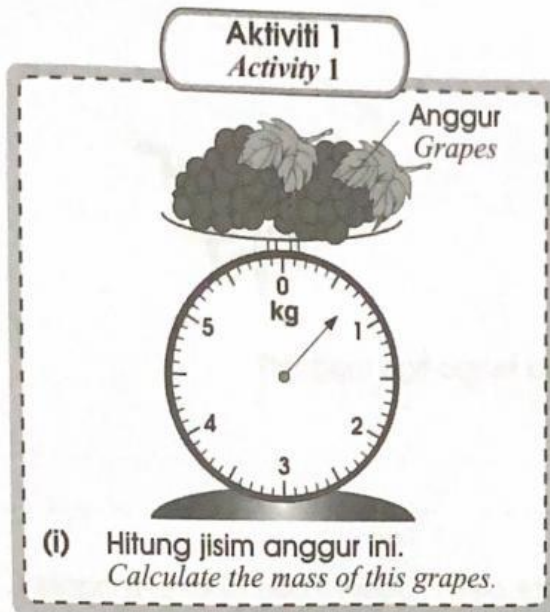
☐ Memerhati  
*Observing*

☐ Mengukur dan menggunakan nombor  
*Measuring and using numbers*

☐ Mengelas  
*Classifying*

☐ Membuat inferens  
*Making an inference*

- 2 (a) Sekumpulan murid menjalankan empat aktiviti seperti di bawah. Perhatikan bacaan bagi setiap aktiviti di bawah.  
*A group of pupils carry out four activities as below. Observe the readings for each activity below.*



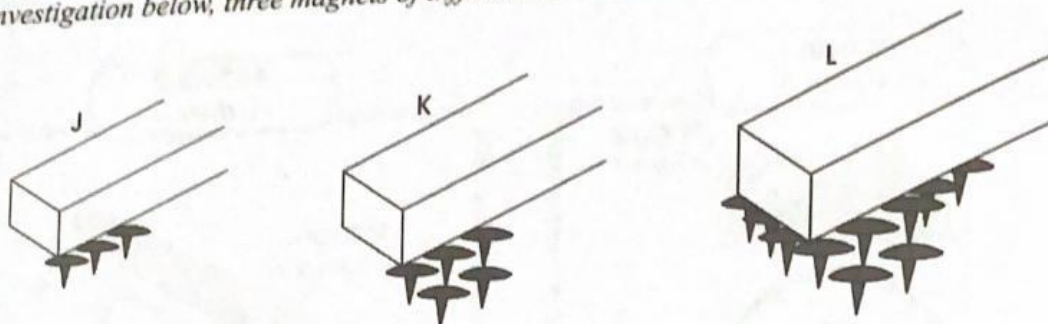
Rekodkan.  
*Record it.*

- (i) Jisim anggur : \_\_\_\_\_ g  
*Mass of grapes*
- (ii) Panjang krayon : \_\_\_\_\_ cm  
*Length of crayon*

- (iii) Isi padu batu : \_\_\_\_\_ cm<sup>3</sup>  
*Volume of the stone*
- (iv) Tebal buku : \_\_\_\_\_ mm  
*Thickness of book*

- (b) Apakah kemahiran proses sains yang digunakan oleh kumpulan murid itu?  
*What science process skill is used by the group of pupils?*

- 3 Dalam penyiasatan di bawah, tiga batang magnet berlainan saiz didekatkan dengan beberapa paku tekan.  
*In the investigation below, three magnets of different sizes are brought closer to several thumbtacks.*



- (a) Apakah pemerhatian yang boleh dibuat pada ketiga-tiga magnet?  
*What observation can be made on the three magnets?*

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- (b) (i) Bezakan bilangan paku tekan yang ditarik oleh magnet J berbanding magnet L.  
*Differentiate the number of thumbtacks attracted to magnet J compared to magnet L.*

---

- (ii) Tuliskan inferens kamu berdasarkan jawapan di (b)(i).  
*Write your inference based on the answer in (b)(i).*

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- (c) Tuliskan pemboleh ubah yang perlu dimalarkan dalam penyiasatan ini.  
*Write down the variable that need to be kept constant in this investigation.*

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- (d) Apakah pemboleh ubah yang  
*What is the variable that is*

- (i) dimanipulasikan?  
*manipulated?*

---

- (ii) bergerak balas?  
*responding?*

---

- (e) Tuliskan hipotesis.  
*Write a hypothesis.*

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