B 组
Section B

[20 分]
[20 *marks*]

回答**所有**的试题。把答案写在试题中指定的地方。
Answer **all** questions. Write your answers in the space provided.
.

1. Diagram 1 shows two similar boxes, *X* and *Y*, which contains 30 chicks and 15 chicks respectively. Each box is covered with a cover which has 8 holes.
图 1 显示两个相同的盒子, X 和 Y, 各装有 30 只和 15 只小鸡。
每个盒子都有 8 个孔洞的盖盖住。

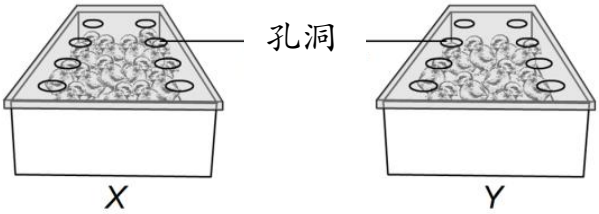


Diagram 1 图 1

The result of this investigation after five hours is recorded in Table 1.
5 个小时后的实验结果被记录在表 1 中.

Box 盒子	Number of dead chicks 死亡的小鸡数量
X	2
Y	0

Table 1
表 1

(a) State what is kept the same (constant variable) in this investigation.
写出在这项实验中须保持不变的事项（固定性变数）。

_____

[1 mark]
[1 分]

(b) State **one** reason (inference) based on the result of this investigation.
根据实验结果，写出一个原因（推断）。

_____

_____

[1 mark]
[1 分]

(c) Write **one** observation to support your inference in (b).
写出**一个**观察来支持 1（b）的原因。

_____

_____

[1 mark]
[1 分]

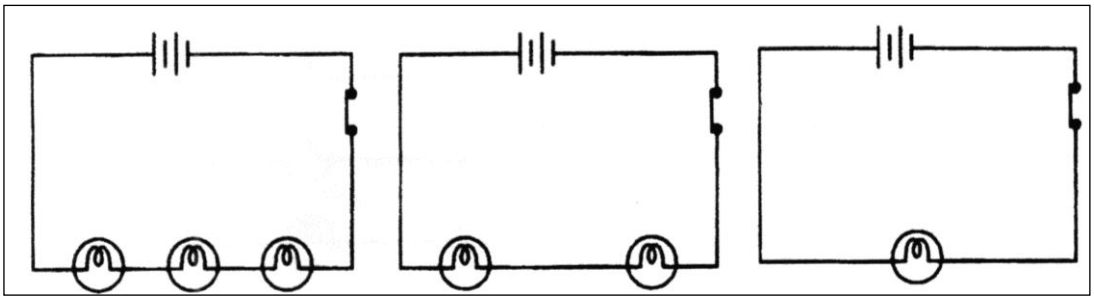
(d) Predict what will happen to the chicks after 5 hours if the cover of the box *X* has only four holes.
如果盒子 X 的盖只有四个洞，预测 5 个小时后，小鸡会怎样?

_____

_____

[[1 mark]
[1 分]

2. Diagram 2 shows three electric circuits, R, S and T. The brightness of the bulbs is recorded.
图 2 显示三个电路 , R, S 和 T。灯泡的亮度被记录下来。



R	S	T
Bright	Brighter	Brightest
亮	更亮	最亮

Diagram 2
图 *2*

(a) What is the purpose (aim) of this investigation ?
这项实验的目的是什么?

_____

_____

[1 mark]
[1 分]

(b) What is the trend of the changes in the brightness of the bulbs in circuits, R, S and T?
在电路 R, S 和 T 中，灯泡亮度的变化形式是怎样的?

_____

[1 mark]
[1 分]

(c) What conclusion can be made from the investigation?
从这个实验中能作出什么结论?

_____

_____

[1 mark]
[1 分]

The number of dry cells affects the brightness of the torchlight. 干电池的数量影响手电筒的亮度。

State one relationship (hypothesis) between the informations from the statement given.
从上述的说明中写出两个资料之间的一个关系。

_____

_____

[1 mark]
[1 分]

3. A group of pupils investigate the ability of materials to absorb water. Different objects are placed in a beaker of water. The time taken by each object to become completely wet is recorded.
一组学生进行有关材料吸水能力的实验。不同的物体被被放入装有水的烧杯里。每一个物体完全湿透所需要的时间被记录下来。

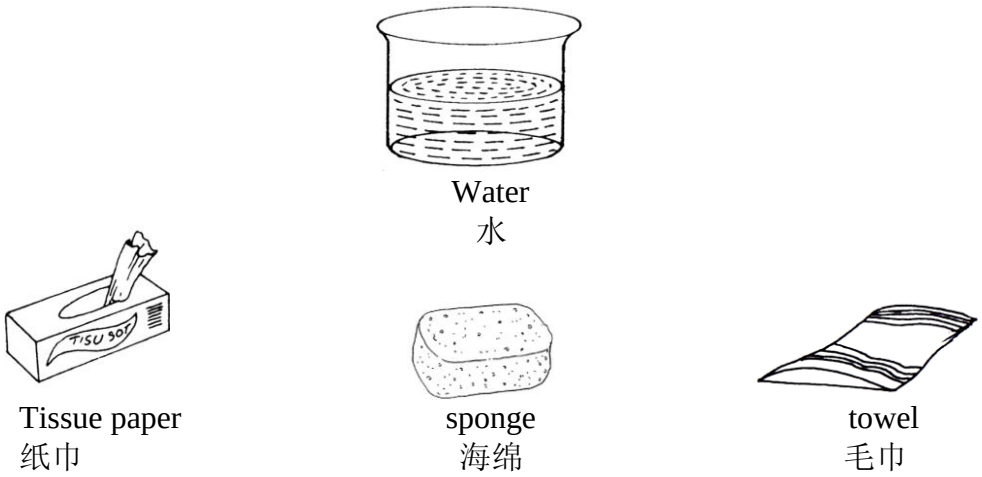


Diagram 3
图 3

The results of the investigation are shown in table 2.
实验结果记录在表 2 中。

Object 物体	Tissue paper 纸巾	Sponge 海绵	Towel 毛巾
Time taken to become completely wet(s) 完全湿透所需的时间(s)	2	18	30

Table 2
表 2

(a) What is the purpose (aim) of this investigation?
这个实验的目的是什么?

_____

_____

[1 mark]
[1 分]

(b) State **one** information gathered in this investigation.
写出在这项实验中所收集的**一个**资料。

_____

[1 mark]
[1 分]

(c) State the relationship (hypothesis) between what is changed (manipulated variable) and what is observed (responding variable).
写出必须改变的事项（操纵性变数）和必须观察的事项（反应性变数）之间的一个关系（假设）。

_____

_____

[1 mark]
[1 分]

(d) Predict the time taken for handkerchief to become completely wet.
预测手帕完全湿透所需的时间。

_____

[1 mark]
[1 分]

4. Table 3 shows the time taken by four planets to make one complete orbit around the Sun.
表 3 显示四个行星绕着太阳运转一周所需的时间。

Planet 行星	Time taken by planet to make one complete orbit around the Sun (day) 行星绕着太阳运转一周所需的时间 (天)
Earth 地球	365
Mars 火星	687
Jupiter 木星	4 333
Saturn 土星	10 759

Table 3
表 3

(a) State one reason (inference) about the difference in the time taken by planets Earth and Saturn.
针对地球和土星所需时间的差异，写出一个原因(推断) 。

_____

_____

[1 mark]
[1 分]

(b) State the trend of change in the time taken by the planet to make one complete orbit around the Sun.
写出行星绕着太阳运转一周所需的时间的变化形式。

_____

_____

[1 mark]
[1 分]

(c) Predict the location of a new planet *P* if it takes 5 130 days to make one complete orbit around the Sun
如果一个新的行星 P 绕着太阳运转一周需 5130 天，预测行星 P 的位置。

_____

_____

[1 mark]
[1 分]

(d) State a relationship between the distance of a planet from the Sun and the time taken by a planet to make one complete orbit around the Sun
写出行星离太阳的距离与行星绕着太阳运转一周所需的时间之间的一个关系。

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[1 mark]
[1 分]

5. Diagram 4 shows different type of cylinder used by a group of pupils to investigate the strength of an object.The observation is shown in Table 4.
图 4 显示一组学生应用不同种类的圆柱体来进行有关物体强度的实验。观察结果记录在表 4 中。

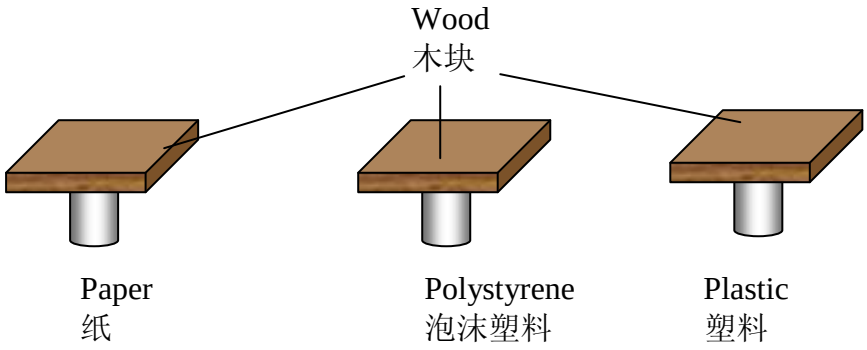

Diagram 4
图 4

Type of Cylinder 圆柱体的种类	Paper 纸	Polystyrene 泡沫塑料	Plastic 塑料
Number of pieces of wood can be supported 所能支撑的木块数量	1	3	5

Table 4
表 4

(a) What is the purpose (aim) of this investigation?
这项实验的目的是什么?

_____

_____

[1 mark]
[1 分]

(b) State **one** variable that need to keep the same (constant) in this investigation.
写出在这项实验中**一个**必须保持不变的事项。

_____

[1 mark]
[1 分]

(c) What is the trend of change in number of pieces of wood can be supported?
所能支撑的木块数量的变化形式是怎样的?

_____

_____

[1 mark]
[1 分]

Height is another factor that affects the stability of an object. 高度是影响物体稳定性的另一项因素。

(d) State **one** relationship (hypothesis) between the variable that is changed (manipulated) and the variable that is observed (responding) based on the statement.
根据上述说明，写出须改变的事项 (操纵性变数) 和须观察的事项（反应性变数）之间的一个关系（假设）。

_____

_____

[1 mark]
[1 分]

END OF QUESTION PAPER
KERTAS SOALAN TAMAT