

Name 姓名: _____ Class 班级: _____ Marks 得分: _____

Section A [30 marks] A 组 [30 分]

There are 30 questions in Section A. Answer all the questions.

Each question is followed by four options, A, B, C and D. Choose the **Correct** option.

A 组共有 30 题试题。回答全部试题。

每题有 A、B、C 和 D 四个选择。选出正确的答案。

- 1 Joe wants to breed a type of animal. He lives in a place that snows during winter. What is the characteristic of an animal that is not suitable to be bred in that area?
小乔想要饲养一种动物。他居住在冬天会下雪的地区。有哪些特征的动物不适合饲养在上述地方。

- A Has a thick layer of fat under its skin 皮下拥有一层厚脂肪
B Has small ears 拥有小耳朵
C Has short hair 拥有短毛发
D Has thick fur 拥有厚皮毛

- 2 Anthony wants to group the following plants.
安东尼想要将以下植物归类。

Group X	Reproduce through suckers
组别 X	通过吸芽法繁殖

Diagram 1 图一

- A Banana plant 香蕉树 B Pineapple 凤梨 C Bamboo 竹 D Ginger 姜

- 3 Diagram 2 shows a cube-shaped carton of orange juice with a vertical straw of 11 cm in it. What is the volume of the carton?
图二显示一盒立方体形的橙汁与插着一根长 11 cm 的垂直吸管。该盒子的体积是多少?

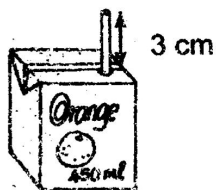


Diagram 2 图二

- A 1331 cm^3 B 512 cm^3 C 450 cm^3 D 27 cm^3

28 Diagram 21 shows ways to reduce friction. 图二十一显示减少摩擦的方法。

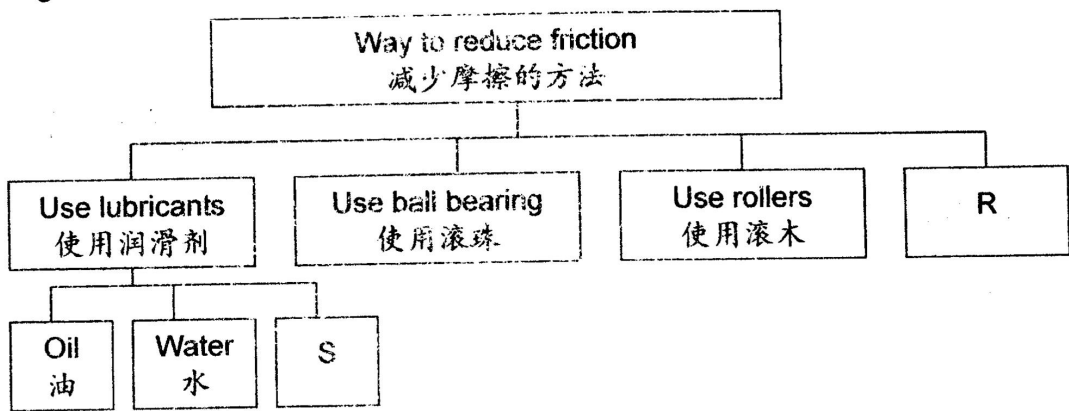


Diagram 21 图二十一

What are R and S? R 和 S 是什么?

	R	S
A	Use talcum powder 使用爽身粉	Grease 油脂
B	Use air cushions 使用气垫	Paint 漆
C	Use contact surface 使用柔軟的接触面	Wax 蜡
D	Use smooth contact surface 使用光滑的接触面	Alcohol 酒精

29 Diagram 22 shows a food web in a habitat.

图二十二显示一个栖息地的食物网。

Which of the following classification is correct?

下面哪项分类是正确的?

	Herbivore 草食动物	Carnivore 肉食动物	Omnivore 杂食动物
A	R, T	S, U	Q, V
B	Q, T	R, V	S, U
C	R, V	S, U	Q, T
D	Q, V	S, U	R, T

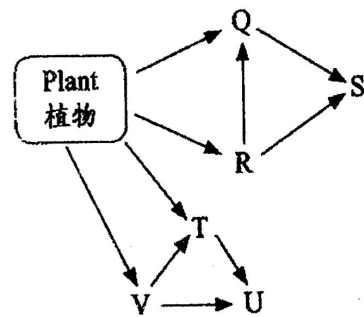


Diagram 22 图二十二

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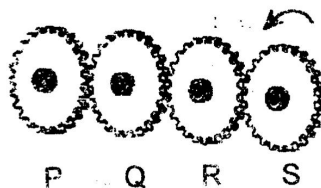
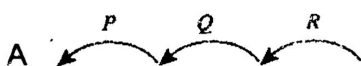


Diagram 23 图二十三

Diagram 23 shows a gear system. If gear S, rotates in the direction shown, the direction for gears P, Q and R are

图二十三显示一组齿轮。如果齿轮 S 顺著所示的方向旋转，那么齿轮 P、Q 和 R 的旋转方向是



Answer all questions

回答所有试题

- 1 Diagram 1 shows an experiment on pulleys. Each object weighs 500 g.
图一显示一项有关滑轮的实验。每个物体的质量为 500 g。

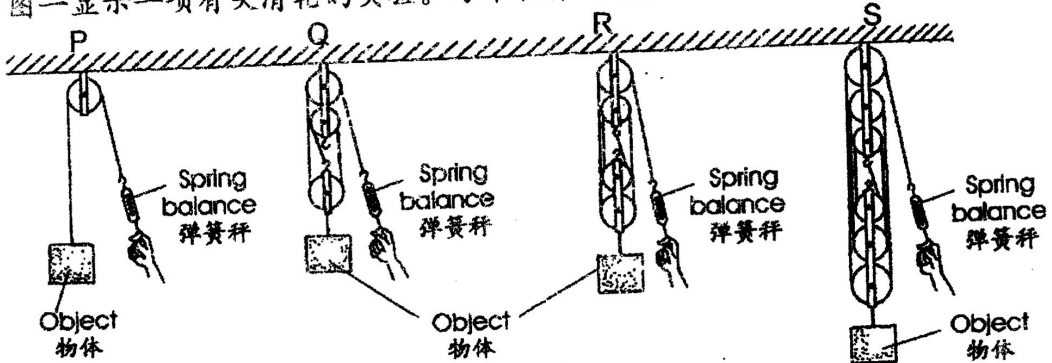


Diagram 1 图一

Table 1 shows the result of the experiment. 表一显示实验的结果。

Pulleys 滑轮	Force applied to pull the object (g) 拉起物体所施的力 (g)
P	250
Q	125
R	105
S	85

Table 1 表一

- a State the purpose of this experiment. 写出这项实验的目的。

(1 mark)

- b State one information gathered in this experiment.
写出这项实验中所收集的一个资料。

(1 mark)

- c What is the trend of change in the force applied to pull the objects by pulley P, Q, R and S?
在滑轮 P、Q、R 和 S 中，拉起物体所施的力的变化形式是怎样的？

(1 mark)

- d What can you conclude from this experiment based on the result of the observation?
根据观察结果，你可作出什么结论？

(1 mark)

- e Predict the force that will be applied if pulley S is able to pull an object of 1 kg.
如果用滑轮组 S 拉起质量 1 kg 的物体，预测所施的力。

(1 mark)

2 Diagram 2.1 shows an experiment. 图 2.1 显示一项实验。

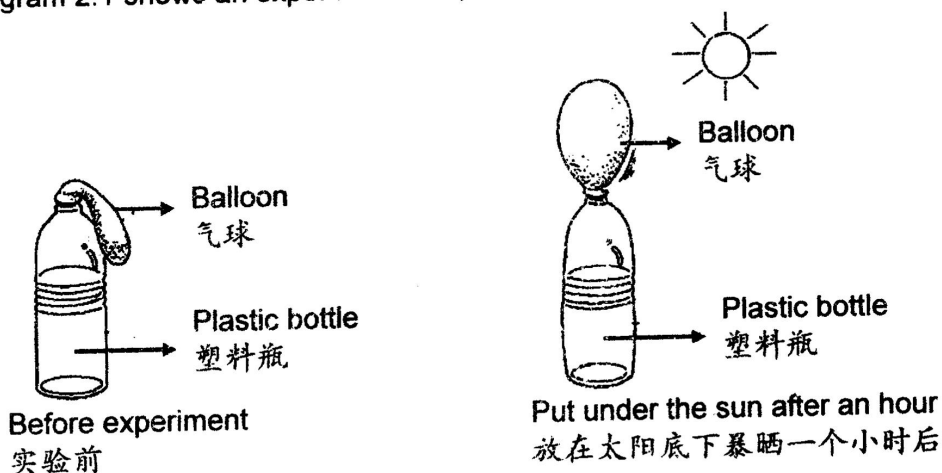


Diagram 2.1 图 2.1

- a State one reason based on the change of the plastic bottle and the balloon.
针对塑料瓶和气球的变化，写出一个原因。

(1 mark)

- b Write one observation to support you answer in 2a.
写出一个观察来支持你在 2a 项的答案。

(1 mark)

- c The plastic bottle is immediately placed in the refrigerator as shown in Diagram 2.2 for another experiment.
实验后的塑料瓶马上被放进如图 2.2 所示的电冰箱内，以进行另一项实验。

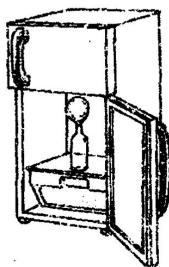


Diagram 2.2 图 2.2

Predict what happens to the plastic bottle and balloon after an hour.
一小时后，预测塑料瓶和气球会怎样。

(1 mark)

- d State 写出
I what is changed? 必须改变的事项:

(1 mark)

- II what is observed? 必须观察的事项:

(1 mark)

- 3 Sing Wang carried out an investigation to find out the relationship between the length of plank and the number of books to balance a bag as shown in the Diagram.

信望进行一项研究如图三所示以找出木板的长度与用来平衡书包的书本数量。

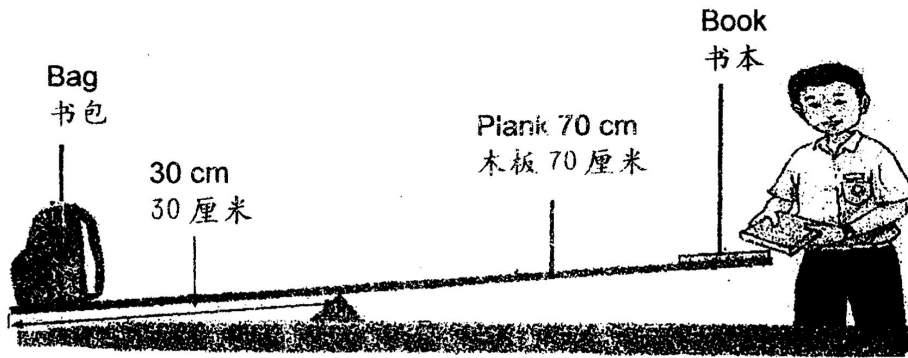


Diagram 3 图三

Table 2 shows the result of the investigation. He marks each plank with 30 cm length from one end.

表二显示的结果。他在每块木板的一端标上 30 厘米的长度。

Plank 木板	Length (cm) 长度 (厘米)	Number of books 书本的数量
A	70	15
B	90	12
C	110	9
D	150	P

Table 2 表二

- a State the trend of the number of books needed to lift the bag.
写出所需的书本数量来举起书包的变化形势。

_____ (1 mark)

- b What is the relationship between the length of the plank and the number of books to lift the bag?
木板的长度与举起书包所需的书本数量两者之间有什么关联?

_____ (1 mark)

- c What is kept the same in this investigation?
在这项实验中，必须保持不变的事项是什么?

_____ (1 mark)

- d State the conclusion of the investigation. 写出实验中的结论?

_____ (1 mark)

- e Predict the value of P. 预测 P 的数值。

_____ (1 mark)

- 4 Suzanne studies the changes of state that water undergoes. The results of the study is shown in the flowchart as shown in Diagram 4
 苏珊娜研究水所经历的形态变化。研究的结果如图四的流程所示。

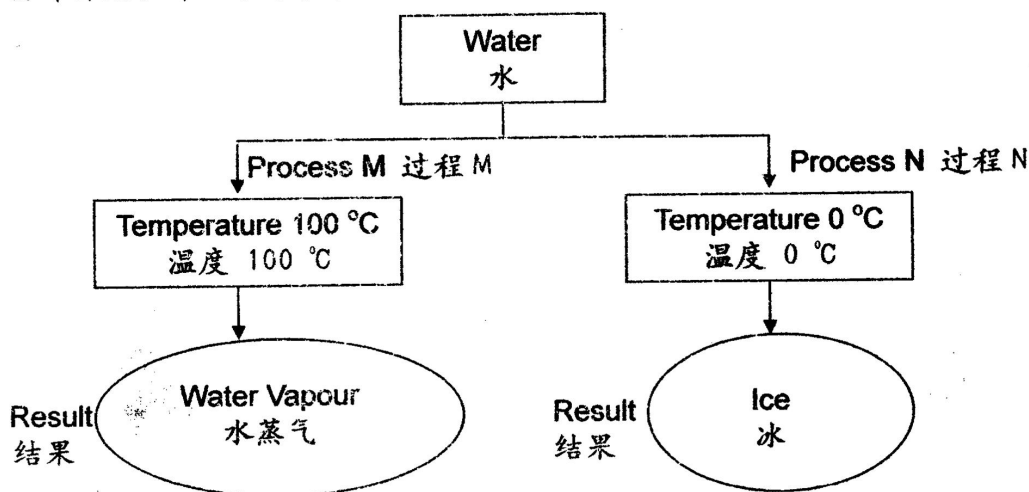


Diagram 4 图四

- a What is changed in this study?

在这项研究中，可改变的事项是什么？

(1 mark)

- b Write the process M and N in the study.

写出实验中的过程 M 和过程 N.

I M:

II N:

(1 mark)

- c Predict the trend of change in the temperature if the water continues to be cooled in process N?

如果在过程 N 中的水持续被冷却，预测温度的变化形式？

(1 mark)

- d Based on the results of the study, what can you say about the state of water?

根据研究结果，你对水的形态可作出什么说明？

(1 mark)

- e State one observation to support your answer in 4d.

提出一个观察以支持你在 4d 项中的答案。

(1 mark)

Section A – Suggested Answer

A 组 – 建议答案

1 C	6 C	11 C	16 C	21 B	26 D
2 A	7 C	12 C	17 D	22 A	27 D
3 B	8 D	13 B	18 C	23 D	28 A
4 A	9 A	14 D	19 C	24 B	29 C
5 A	10 C	15 A	20 C	25 D	30 D

Section B – Suggested Answer

B 组 – 建议答案

- 1 a To study the relationship between the number of pulleys and the force applied to pull an object / how the number of pulleys can affect the force applied to pull an object.
为了研究滑轮的数量与拉起物体所施的力之间的关系 / 滑轮的数量如何影响拉起物体所施的力。
- b Types of pulleys used / the mass of objects / the force applied to pull each object
滑轮的种类 / 物体的质量 / 拉起物体所施的力
- c There is a decrease in the force applied to pull each object. 减少 / 下降
- d When more pulleys are used, the less force will be applied to pull an object.
滑轮越多, 拉起物体所施的力越少
- e 170 g
- 2 a The air in the plastic bottle and balloon have expanded / inflated.
塑料瓶和气球内的空气受热膨胀
- b As the plastic bottle and balloon expand / inflated, their volume will become larger. 塑料瓶和气球都膨胀了, 体积也变大了。
- c The plastic bottle and balloon will start to deflate and their volume will become smaller. 塑料瓶会凹陷, 气球会收缩, 体积会变小。
- d I The place where the plastic bottle is placed (under the sun or in the refrigerator)
塑料瓶被置放的地方 (太阳底下或冰箱里)
- II The conditions of the plastic bottle and the balloon. 塑料和气球的情况
- 3 a Decreases 下降
- b As the length of the plank increases, the number of book to lift the bag decreases.
木板的长度越长, 举起书包所需的书本数量就越少。
- c The mass of the bag / The distance between the bag and the pivot.
书包的重量 / 书包与支点之间的距离。
- d As the length of the plank increases, the number of books to balance the bag decreases.
木板的长度越长, 用来平衡书包所需的书本数量就越少。
- e 3 books 3本
- 4 a Temperature 温度
- b I Boiling 沸腾
- II Freezing 凝固
- c No change 保持不变
- d Water can exist in the form of solid, liquid or gas / water can change from one state to another
水以固体, 液体或气体的形态存在 / 水的形态可以互相转换
- e Water can change to water vapour at 100 °C / Water can change to ice at 0 °C
在 100 °C 是水可转换成水蒸气 / 在 0 °C 水可转换成冰

4 Rachel wants to perform a study. 雷切尔想要进行一项研究。



The diagram 3 shows what happens after she put 10 green beans in a cut plastic bottle. What is the purpose of her investigation?

图三显示他在废置塑料瓶内放入 10 颗绿豆后所获得的结果。他实验的目的是什么?

- A To investigate the condition of plants when competition occurs
为了要研究植物互相竞争时所发生的情况
- B To investigate if plastic bottles can be reused
为了要研究塑料瓶是否能再使用
- C To investigate if plants respond to water
为了要研究植物是否对水产生反应
- D To investigate if plants need water
为了要研究植物是否需要水

5 Diagram 4 shows Eva found some seeds on her cat's fur when she was combing it. What had her cat pass through?

图四显示当伊娃替她的猫梳理时她发现一些种子在猫的毛发中。他的猫接触过以下哪种植物?

- A A patch of love grass 相思草
- B An angsa plant 青龙木
- C A pot of balsam 凤仙花
- D A rose plant 玫瑰



Diagram 4 图四

6 Diagram 5 shows a photo frame. 图五显示一个相架。

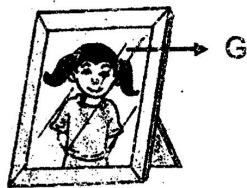


Diagram 5 图五

What can you say about G? 你可对 G 作出什么说明?

- A G only allows some light to pass through
G 只让一部分的光线透过
- B G does not allow light to pass through
G 不让光线透过
- C G is transparent
G 是透明体
- D G is translucent
G 是半透明体

以上所提及的行星远离太阳排行第_____。

- A Seventh 七 B Fourth 四 C Sixth 六 D Fifth 五

图六显示一个浸在液体里的温度计。

The temperature of the liquid is _____.

液体的温度是_____。

- A 35.2 °C
B 35.25 °C
C 37.0 °C
D 37.5 °C

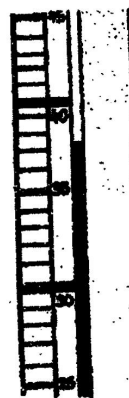


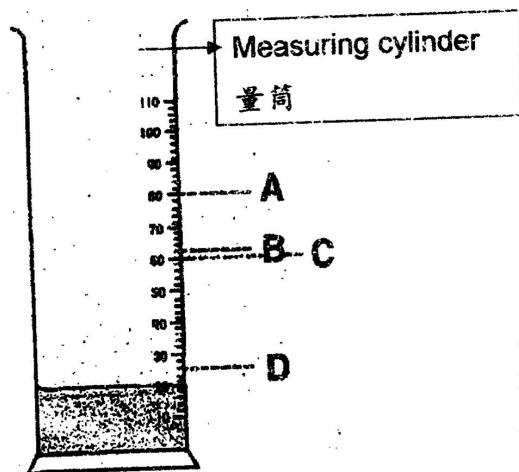
Diagram 6 图六

下列显示一颗玻璃弹珠的一些资料。

- Mass = 2 g
- Volume = 20 cm³
- Surface area = 14 cm²

If three marbles are dropped into the measuring cylinder, where is the water level?

如果将三颗玻璃弹珠放进量筒里，水位会在哪里？



- | | |
|---|----|
| A | 80 |
| B | 62 |
| C | 60 |
| D | 26 |

- Diagram 7 shows the different stages in the history of construction technology.
图七显示不同时期的建筑工艺。



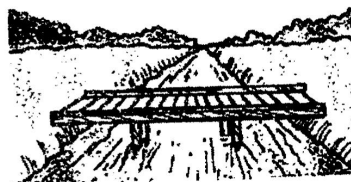
Q



R



S



T

Diagram 7 图七

Starting with the oldest, arrange the diagrams in the correct order of their historical development.

从最古老的开始，正确的排列上面各图来说明建筑工艺发展史。

- A Q, S, T, R B R, Q, T, S C S, T, Q, R D T, Q, R, S

- 11 The information below shows foods made using microorganism K.

下列资料显示利用微生物K所制成的食品。

- Beer 啤酒
- Bread 面包

What is microorganism K? 微生物K是什么?

- A Mushroom 蕈 B Mould 霉菌 C Yeast 酵母菌 D Virus 病毒

- 12 Diagram 8 shows a plant in Joanna's garden.

图八显示一棵在乔安娜庭院里的植物。



Diagram 8 图八

What should be done so that it can grow healthily?

要怎样做才能使植物健康的成长?

- A Pluck the remaining leaves 把剩余的叶子拔掉
B Cut off all the branches 把所有的树枝砍掉
C Water it regularly 定时浇水
D Give it air 供应空气给它

13 The following information is on animals, their eggs and their young.

下列资料与动物的卵和幼儿有关。

- Frogs lay large quantities of eggs.
青蛙大量产卵。
- Turtles hide their eggs in the sand
海龟把卵藏在沙里。
- The kangaroos put their joey in their pouch.
袋鼠把幼儿藏在幼儿袋里。
- The young elephants stay close together in the herd
小象夹杂在象群里。

Which of the following statements best explains the behaviour of the above animals?

下列哪项说明解释上述动物的行为。

- A To prevent their eggs and young from the hot sun and heavy rain
避免卵或幼儿日晒雨淋
- B To ensure the continuity of their species
确保物种得繁衍下去
- C To care for their eggs and young
方便照顾卵或幼儿
- D To adapt to their surroundings
为了适应四周环境

14 Diagram 9 shows Charles walking along a street at night.

图九显示查理在一条街上步行。

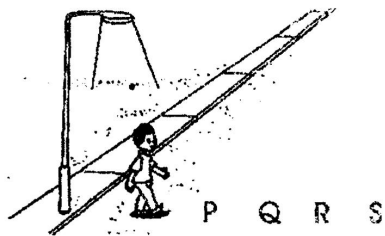


Diagram 9 图九

At which position would he be when the shadow is the longest?

他步行到哪个位置是会形成最长的影子?

- A P
- B Q
- C R
- D S

15 Diagram 10 shows the development of phases of the moon. The correct sequence of the phases is _____.

图十显示月相的变化。正确的顺序是_____。

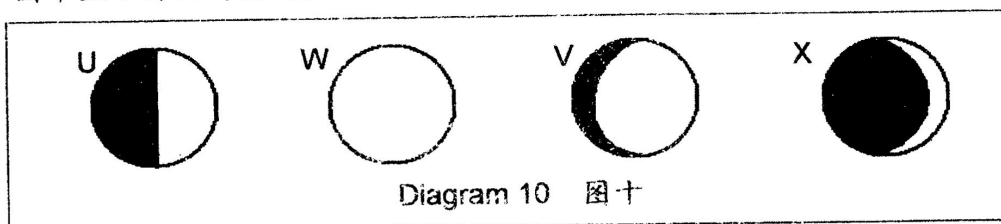


Diagram 10 图十

- A X, U, V, W
- B U, W, X, V
- C X, W, V, U
- D W, X, U, V

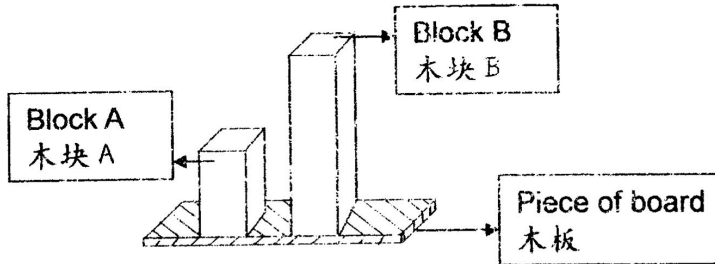


Diagram 11 图十一

When the piece of board is inclined little by little, Block B will fall off first. Which one of the following is the most convincing regarding the activity in Diagram 11?
当图十一所示的木板被斜抬起时，木块 B 最先倒下。下列哪项说明是正确的？

- A Taller construction structures are more stable than lower structures
高的建筑物比低的建筑物平稳
- B The stability of a construction structure is influenced by its location
建筑物的稳固性和它的位置有关
- C Low center of gravity is more stable than high center of gravity
低重心建筑物比高重心建筑物更平稳
- D Site surface influences the stability of blocks
底部面积影响木块的稳固

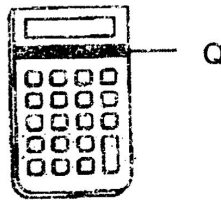


Diagram 12 图十二

Diagram 12 shows a piece of electronic gadget. What is the function of the part labeled Q? 图十二显示电子器具的 Q 部分有什么功能？

- A Supply electric current when the switch is turned on 开机后提供电能
- B Display numbers when the buttons are pressed 按钮时显示数目字
- C Convert heat energy to electric energy 把热能转换成电能
- D Convert light energy to electric energy 把光能转换成电能



Diagram 13 图十三

Diagram 13 shows four different types of structures. Which one can withstand the most pressure from above?
图十三显示四种不同的结构。哪一种可以承受来自上方最大的压力

- A J
- B K
- C L
- D M

19 Diagram 14 shows three different tyres. 图十四显示三种不同的轮胎。

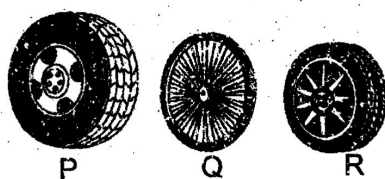


Diagram 14 图十四

Arrange the tyres according to increasing friction.

根据摩擦力逐渐增加的次序，排列上述轮胎。

A P, Q, R

B P, R, Q

C Q, R, P

D Q, P, R

20 Christy cuts out a square with the area of 10 cm^2 .

克里斯秋剪出一个面积为 10 cm^2 的正方形纸卡。

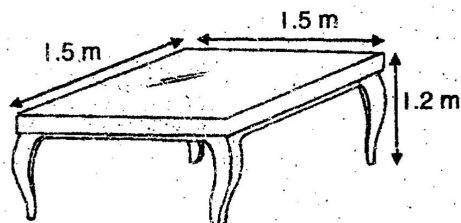


Diagram 15 图十五

If she cuts out more squares, estimate the number of squares she can put on the table.

如果她剪出更多的正方形纸卡，估计她可放满在桌上的正方形纸卡的数量。

A 1200

B 1500

C 2250

D 15000

21 Four balls; P, Q, R and S were thrown from the same height. Diagram 16 shows the marks and depression left on the sand after the balls were picked up.

四个球 P、Q、R 和 S，从相同的高度抛下。图十六显示球被捡起后，留在沙地的球印和深度。

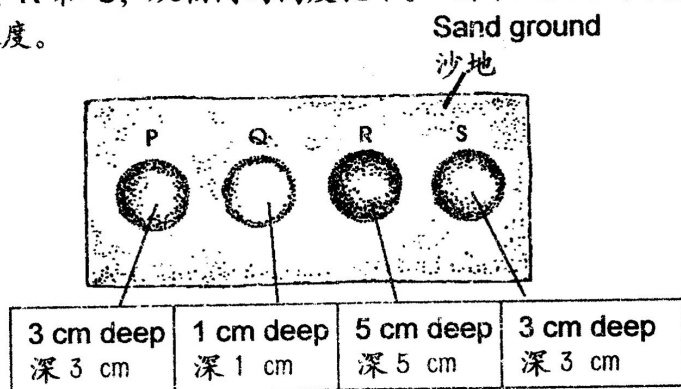


Diagram 16 图十六

Which of the following statements on the mass of the balls is true?

下列哪项有关球的质量的说明是正确的？

A Ball Q has the largest mass, whereas ball R has the smallest mass

球 Q 的质量最大，球 R 的质量最小

B Balls P and S are of the same mass. 球 P 和球 S 有相同的质量

C Ball Q is heavier than balls P and S. 球 Q 比球 P 和球 S 重

D Ball P is lighter than ball S. 球 P 比球 S 轻

2 The distance between Kuala Lumpur and Penang is about 360 km. A bus started its journey at 8.00 a.m. from Kuala Lumpur, and reached Penang at 2.00 p.m. What is the traveling speed of this bus?

吉隆坡距离檳城约 360 公里。一辆巴士于上午 8:00 从吉隆坡出发, 下午 2:00 才抵达檳城。这辆巴士的时速是多少?

- A 60 km / hour 60 公里 / 小时
- B 90 km / hour 90 公里 / 小时
- C 180 km / hour 180 公里 / 小时
- D 360 km / hour 360 公里 / 小时

23 Which of the following statements about water are true

下列哪项有关水的形态变化的说明是正确的?

- I The temperature of boiling water is known as the boiling point.
水沸腾时的温度叫沸点
- II When water turns into ice, the volume will increase.
水结冰后, 体积会增加
- III Water turns to ice when the temperature is below 0°C .
在气温 0°C 以下, 水会结冰
- IV Ice will start to melt at 0°C
冰融化时的温度是 0°C

- A I and II B II and IV C I, III and IV D I, II, III and IV
- I 和 II II 和 IV I, III 和 IV I, II, III 和 IV

24 Diagram 17 shows an experiment carried out by Larry. He poured some water into a metal tin and heated it till the water boiled. Then he covered the tin tightly with a lid and placed the tin under running tap water for a few minutes.

图十七显示龙顺进行的一项实验。他倒了一些水进金属罐里, 接着把金属罐放在火上加热, 使水沸腾。然后他把罐盖盖紧, 放在水龙头下浇淋自来水几分钟。

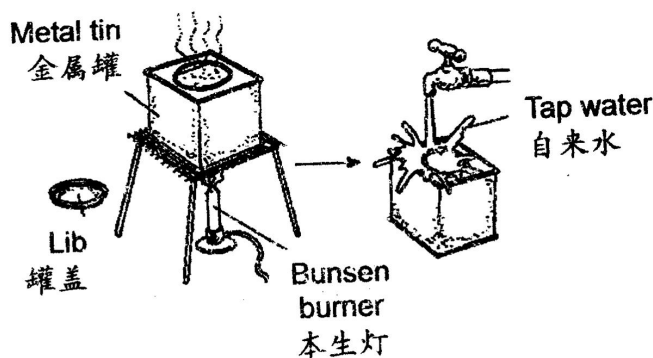


Diagram 17 图十七

The result of Larry's experiment shows that _____.

龙顺的实验结果是_____。

- A the metal tin did not change 金属罐保持不变
- B the metal tin depressed 金属罐凹陷
- C the metal tin crushed 金属罐粉碎
- D the metal tin inflated 金属罐膨胀

- 25 Diagram 18 shows some of the activities that man does to damage the environment.
图十八显示人类破坏环境的活动。



Diagram 18 图十八

Which of the activities will cause a green house effect?
上述哪项活动会导致温室效应。

- A P and S B Q and R C P, Q and R D Q, R and S
P 和 S Q 和 R P、Q 和 R Q、R 和 S

- 26 Diagram 19 describes a lever principle. 图十九显示杠杆的基本原理。

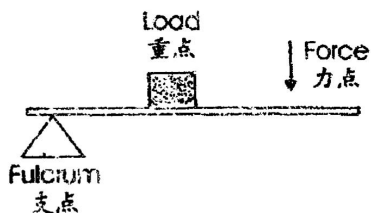


Diagram 19 图十九

Which of the following uses the principle illustrated above to convey an advantage of ease as well as saving energy?
下列那种机械采用上述杠杆的基本原理，以达至省力、方便的优点？



- A W and X B W and Y C X and Z D X, Y and Z
W 和 X W 和 Y X 和 Z X、Y 和 Z

- 27 Diagram 20 shows information gathered from an observation on the night of the 15th Lunar. 图二十显示一项在阴历 15 日晚上作出观察后所收集到的资料。

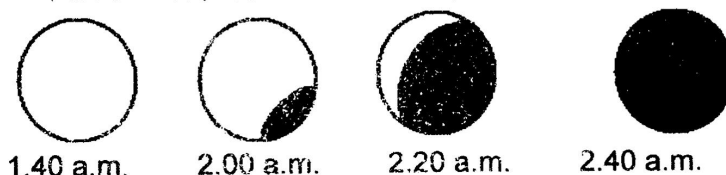


Diagram 20 图二十

What is the phenomenon? 这是什么现象？

- A Occurrence of day and night 白昼和黑夜的形成
B Eclipse of the Sun 日食
C Phases of the Moon 月相
D Eclipse of the Moon 月食