六年级科学

预考试卷

2018年

科学

试卷二 028/2

1小时 1小时

不可翻阅试卷直至通知为止

1. 把身份证号码或报生纸号码和考生编号写在指定的格子里。
2. 答案须清楚写在试题中。
3. 这份试卷共有8题。
4. 全部题目必须作答。
5. 如果你要更改答案，先把原来的答案擦干净，然后才写上新的答案。

这份试卷共有20页影印页面

1. a) 图1.1显示两组动物。

   Diagram 1.1 shows two groups of animals.

动物 Animals	X 壁虎 *Lizard*	如 as	Y 大象 *Elephant*
	海龟 *Turtle*		斑马 *Zebra*
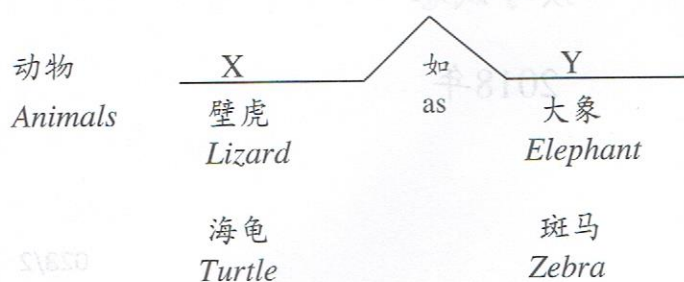
图1.1 /*Diagram 1.1*

i) 说出可以归类在X组的另一种动物。

   Give an example of animal that can be classified in group X.

   ....

   [1 分/mark]

ii) 根据图1.1，海狮可被归类于哪一组？为什么？

   Based on Diagram 1.1, which group can sea lion be classified? Why?

   ....

   [1 分/mark]

b) 图1.2显示两种动物。

Diagram 1.2 shows two types of animals.
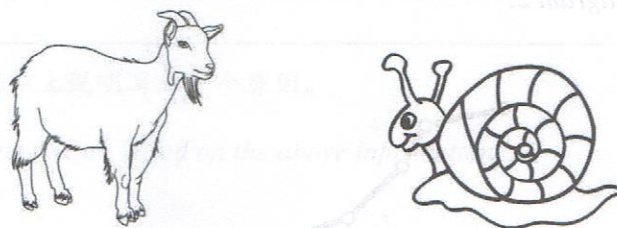
图1.2 / *Diagram 1.2*

i）根据图1.2，试举例这两种动物的不同点。

What is the difference between two animals in Diagram 1.2?

....

[1 分/mark]

ii）根据图1.2，这些动物有相同的特征。在相同的特征画 ☐√

Based on Diagram 1.2, these animals have the same characteristic.

Tick ☐√ *at the same characteristic.*

栖息地	☐
Habitat	
外皮特征	☐
Body coverage	
进食习惯	☐
Eating habit	

[1 分/mark]

2. 艾曼和弟弟正在观察夜晚的天空。他们看见如图2所示的星座。

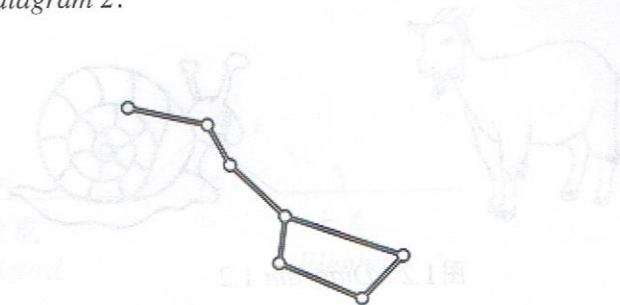   *One night, Aiman and his brother were observing the sky. They observed the constellation in diagram 2.*

图 2 / *Diagram 2*

a. 星座的定义是什么？在（　　）里 √ 选出对的答案。

   What is constellation? Tick (√) in the correct box.

   在夜晚闪烁的群星

   Stars glittering at night in the sky

   一群在夜空形成特定图案的星体

   A group of stars forming a recognisable pattern at night in the sky

   [1 分/mark]

b. 写出在图2所观察到的星座名称。

   Name the observed constellation in diagram 2.

   ....

   [1 分/mark]

c. 星座如何帮助古代的农民？

   How the constellation helps the farmers long time ago?

   ....

   ....

   [1 分/mark]

d.

> 白天我们看不见星座
> *We could not observed constellations during day time*

根据以上说明写出一个原因。

Give a reason based on the above information.

....

[1 分/mark]

3. 表一显示某个州属在四年内被丢弃有毒废物的数量的调查结果。

   Table 1 shows a result of investigation on the amount of toxic waste in a state for 4 years.

年份 Year	被丢弃有毒废物的数量（公斤） Amount of toxic waste (kg)
2011	1000
2012	2000
2013	3000
2014	1500

表 1 / Table 1

a) 根据以上图表，写出固定性变数。

   Based on the table above, state the constant variable.

   ....

   [1 分/mark]

b) 写出被丢弃有毒废物的数量的变化形式。

   State the change pattern of the amount of toxic waste.

   ....

   [1 分/mark]

c) 根据2013年至2014年被丢弃有毒废物数量，做出一个推断。

   State one inference on the amount of toxic waste from the year 2013 to 2014.

   ....

   ....

   [1 分/mark]

d) 根据上述调查结果做出结论。

State the conclusion that can be made based on the investigation above?

....

....

[1 分/mark]

e) 根据你的看法，为什么有毒废物依然存在我们的四周环境？

In your opinion, why does the toxic waste remains in our environment?

....

....

[1 分/mark]

4. (a) 阿卡玛在停电时使用手电筒。他发现手电筒的亮度是暗淡的。

    Akmal used a torchlight during a blackout in his house. He found out that the torchlight has a low brightness.
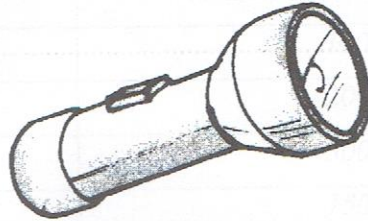
图 4.1
Diagram 4.1

    (i)   建议一个增加手电筒亮度的方法。

           Suggest one way to improve the brightness of the torchlight.

    ....

                                                                        [1 分/mark]

    (ii)   根据图 4.1的手电筒，利用元件的符号绘制一个完整电路。

           Sketch a complete electrical circuit using symbols based on the torchlight given in Diagram 4.1.
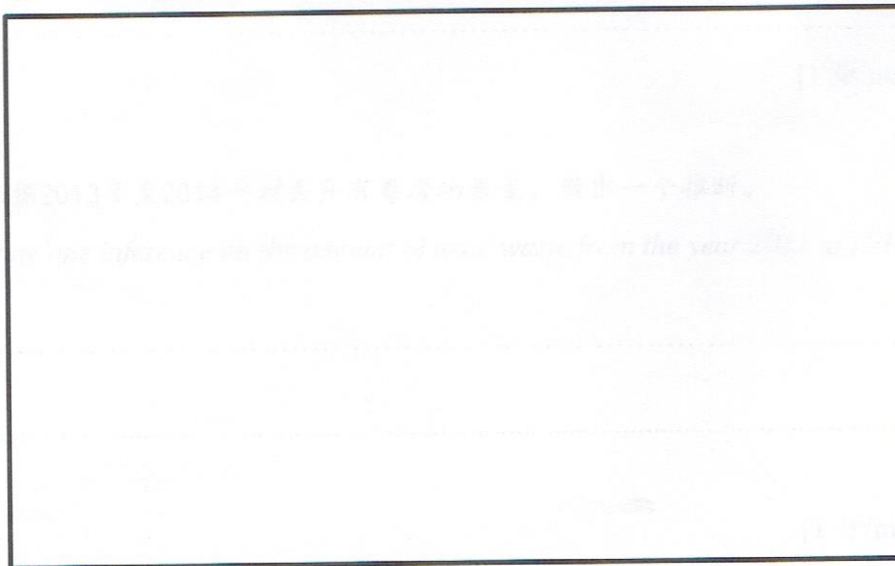
[2 分/mark]

(b) 鉴定实验中两种不同电路的灯泡的亮度。

An investigation was carried out to identify the brightness of light bulbs for 2 different electrical circuits.

灯泡的亮度
Brightness of bulb

电路 X Circuit X
电路 Y Circuit Y
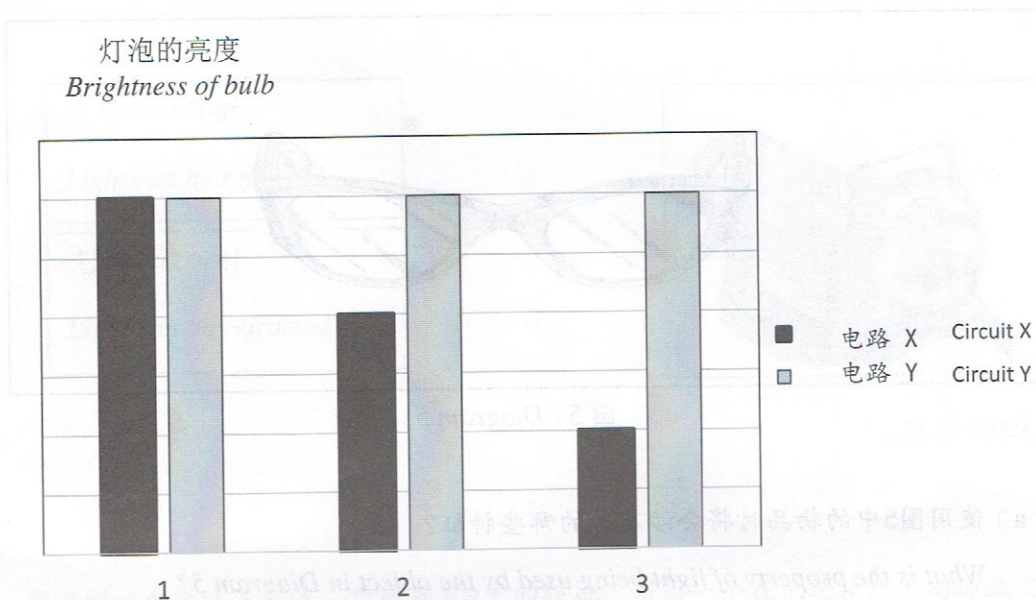
图 4.2 / *Diagram 4.2*

(i) 说出两种电路的名称。

Name 2 types of the electrical circuits.

X:..

Y:..

[2 分/mark]

5. 图5显示针对一种物品所进行的研究。

Diagram 5 shows the investigation of an object.
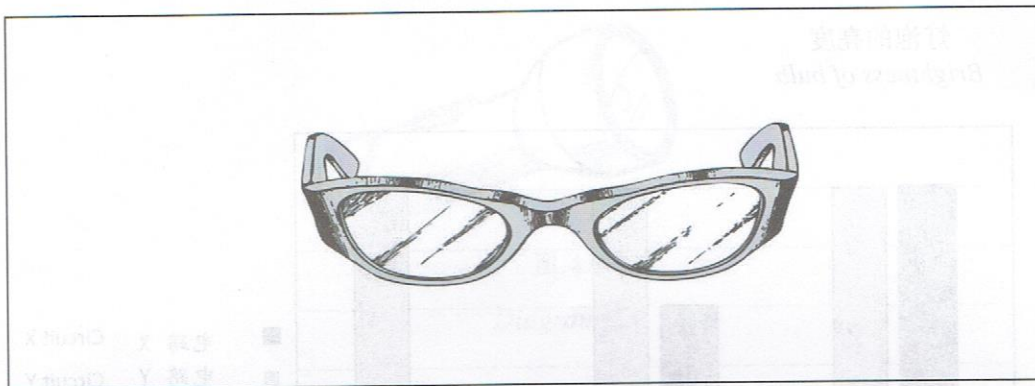
图 5 / *Diagram 5*

a) 使用图5中的物品时将会涉及光的哪些特征？

What is the property of light being used by the object in Diagram 5?

....

[1 分/mark]

b) 写出两种使用以上光的特征的原理所制成的物品？

State two equipments that used the properties of light based on the situation above?
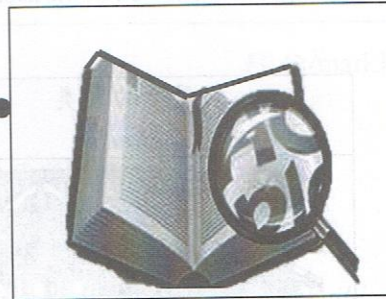
....

....

[2 分/mark]

c) 正确地搭配图中光的特征。

Match the picture to the correct property of light.

| 光可以被反射 | |
| Light can be reflected | |

| 光可以被折射 | |
| Light can be refracted | |

[1 分/mark]

d) 利占到一个游泳池游泳。根据图5的光的特征，写出一个在他还没跳入游泳池之前所采取的措施。

Reezan goes swimming in a pool. Based on properties of light in Diagram 5, state a precaution that he must ensure before diving into the pool.

....

[1 分/mark]

6. | 为了建造坚固的建筑物，通常会使用铁和砖块等材料。
To build a strong building, materials such as iron and concrete are used.

图6显示两种使用不同材料建造的房屋。

Diagram 6 shows two houses made of different materials
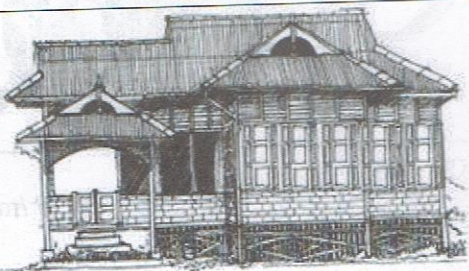
屋子的种类 *Houses*	30年后，屋子的情况 *House condition after 30 years*
屋子A *House A*	
屋子B *House B*	

图 6 / *Diagram 6*

a. (i) 根据图6，写出你的观察。
Based on diagram 6, state your observation.

_____

_____

[1 分/mark]

(ii) 根据 a(i)的观察，写出你的推断。

State an inference for your observations in a (i)

_____

_____

[1 分/mark]

b. 那英要建造一栋屋子。在那英建造一个坚固的屋子所需考量的因素上画 (✓)。

Naim wants to build a house. Tick (√) for factors to be considered by Naim to build a strong and long lasting house.

建筑物的高度 The building height	
建筑物的形状 The building shape	✓
建筑物的底部面积 The building base area	

[1 分/mark]

c.

3座桥建造在马六甲的3条河上。桥P使用木材料建造，其使用期为10年；桥Q使用铁材料建造，其试用期为20年；桥R使用砖块建造，其试用期为30年。

Three bridges were built over three rivers in Melaka State. Bridge P is built with wood and its durability is 10 years, Bridge Q is built with steel and its durability is 20 years and Bridge R is built with concrete and has 30 years durability.

根据上述资料，绘制一个表以显示桥的不同点。

Based on the statement in the above passage, construct a table to show the differences between the bridges.

[2 分/mark]

7. 阿里应用三个不同大小的磁铁 P 、Q 和 R 进行一项有关磁力的研究。磁铁 Y 被固定在桌面上。

Ali conducts an investigation on magnetic strength by using 3 different sizes of magnets labeled as P, Q and R. A magnet labelled as Y has been fixed on the surface of a table.

活动 1 / Activity 1：

阿里将磁铁 P 靠近磁铁 Y 如图7所示。当磁铁 P 被放开后，阿里发现有关磁铁远离磁铁 Y 。

Ali has placed the P magnet close to Y magnet as shown in diagram 7. When he let go P magnet, Ali found out that the P magnet has distanced away from Y magnet .
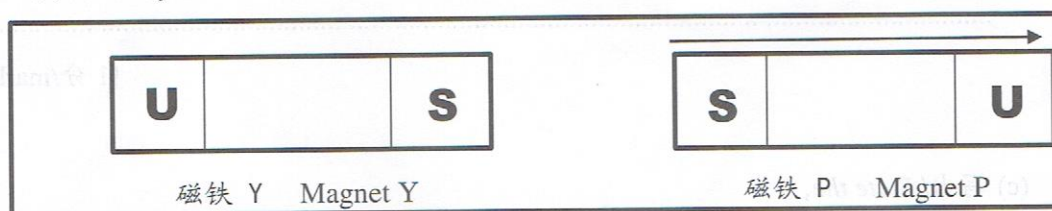
实验前 / Before
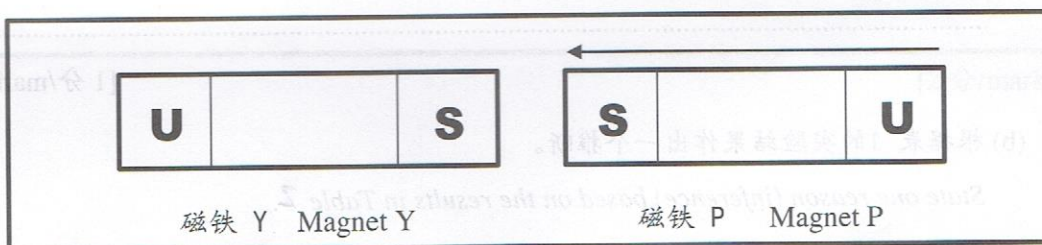
实验后 / After

图 7 / Diagram 7

活动 2 / *Activity 2:*

图 7 的活动接着以磁铁 Q 和 R 进行。每个磁铁相斥的距离从 Y 磁铁开始测量。表 2 显示实验结果。

Activity in diagram 7 is continued using Q and R magnets. The repelled distance for each magnet has been measured from magnet Y. Table 2 shows the results of the investigation.

磁铁/ magnet	P	Q	R
磁铁相斥的距离/ Repelled distance (cm)	2.3	X	4.7

表 2 / Table 2

(a) 如果磁铁相斥的距离的变化形式增加，预测表2里X的值。

Predict the value of X in table 2 if the repelled distance pattern increases.

....

....

[1 分/mark]

(b) 根据表 1的实验结果作出一个推断。

State one reason (inference) based on the results in Table 2.

....

....

[1 分/mark]

(c) 写出/ *State the,*

i.   固定性变数 / *constant variable:*

....

ii.   操纵性变数 / *manipulated variable:*

....

[2 分/mark]

(d) 根据表 2 的资料，绘制一个条形统计图。

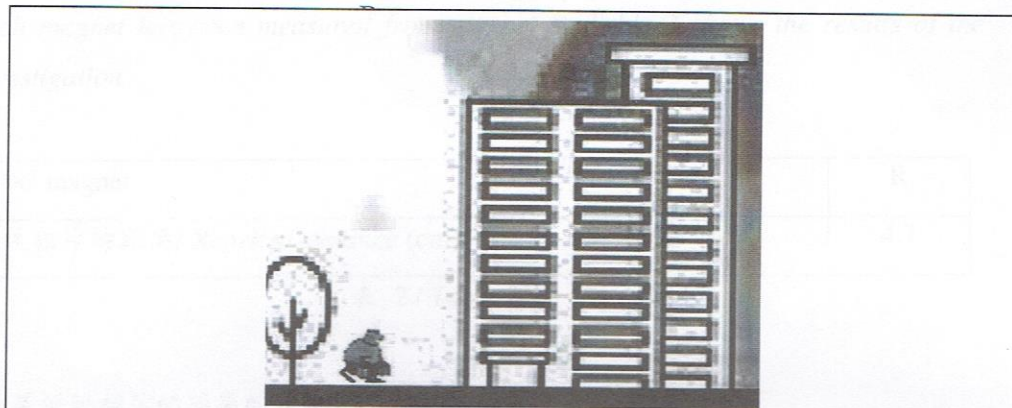*Based on the information in Table 2, construct a bar chart in the space below.*
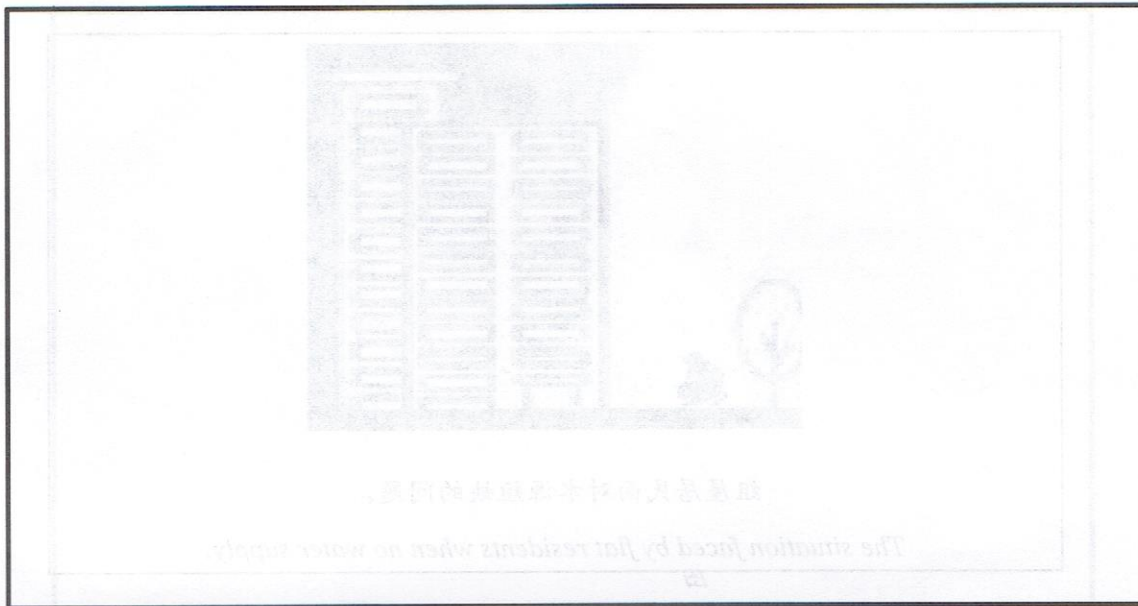
[2 分/mark]

8. 达尼士发现住在组屋的居民面对把水从底楼运往顶楼的问题。

   Danish finds out that the residents living in a flat has a problem bringing water from the ground floor to the top floor.

组屋居民面对水源短缺的问题。

The situation faced by flat residents when no water supply.

图 8.1 / Diagram 8.1

根据图8.2，试帮助达尼士解决组屋居民的问题。

Based on Diagram 8.2, help Danish to solve the problems of the flat residents.

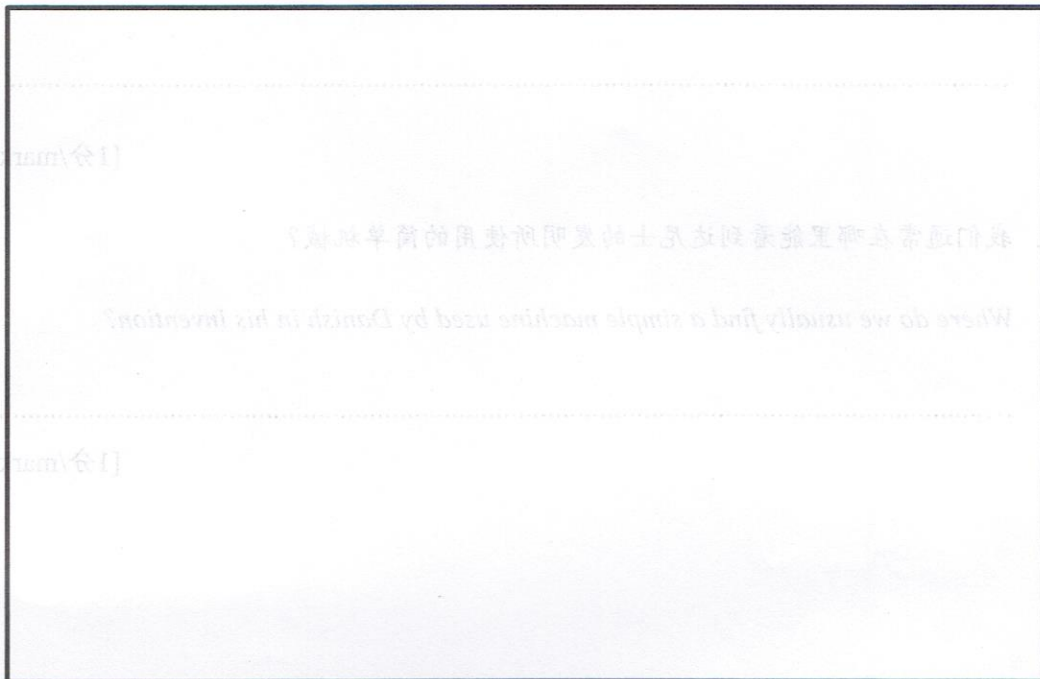| 水桶	铁钩	绳子	用具X
Pail	Steel Hook	Rope	Tool X

图 8.2 / Diagram 8.2

a. 根据以上物品，试帮助达尼士用简单机械设计一个可以解决以上问题的方法。

Based on the objects, create a device to resolve the flat residents' problem by sketching it in the space below.

[2 分/mark]

b. 建议另外两种可以帮助解决以上问题的简单机械。

Suggest 2 another simple machines which can solve the residents' problem near Danish's home.

(i) ....

(ii) ....

[2 分/mark]

c. 达尼士设计的简单机械设置已经完成及能被使用，他在拉动绳子时面对问题。
建议一个解决该问题的方法。

The simple machine built by Danish is ready and usable but he has trouble moving the rope. Suggest a way to resolve his problem.

....

[1分/mark]

d. 我们通常在哪里能看到达尼士的发明所使用的简单机械？

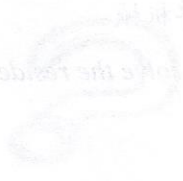*Where do we usually find a simple machine used by Danish in his invention?*

....

[1分/mark]