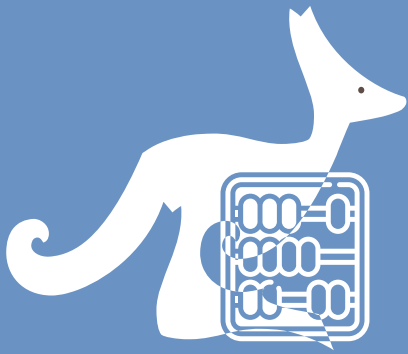




MATH KANGAROO CHINA

考试说明 / Instruction

Time allowed: 75 minutes

考试时长: 75 分钟

Language: English & Chinese

试卷语言: 英文和中文

This is a 24-question multiple-choice competition.

考试包含 24 道单项选择题。

Problems 1 to 8 are worth 3 points each.

1-8 题每题 3 分

Problems 9 to 16 are worth 4 points each.

9-16 题每题 4 分

Problems 17 to 24 are worth 5 points each.

17-24 题每题 5 分

1 point will be deducted for an incorrect answer and

no point for a blank answer.

答错扣 1 分, 不答不扣分。

The full score is 120 (Starting point is 24)

总分为 120 分 (起始分数为 24 分)

Do not open this booklet until you are told to do so.

收到监考老师指令后, 方可打开试卷册。

Mark your answers clearly on the answer sheet using a **2B pencil**.

务必使用 **2B 铅笔** 在答题卡上正确填涂自己的答案。

Calculator cannot be used during the competition.

考试期间禁止使用计算器。

DO NOT discuss problems and solutions in any online or public forum until April 30.

4 月 30 日前请勿以任何形式公开讨论试题和答案。

**Grade 3
&
Grade 4**

3 points

1. Mia is joining small cubes, adding one at a time, to build a $3 \times 3 \times 3$ cube.

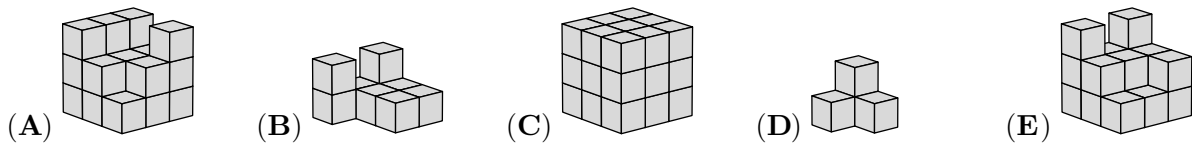
She took pictures at 5 different moments.

What does Mia's third picture look like?

小米正在用小立方体搭建一个 $3 \times 3 \times 3$ 的大立方体，每次添加一块小立方体。

她在五个不同的时刻拍下照片。

请问小米拍的第三张照片是什么样子？



2. Simona writes the four digits 2, 0, 2, 5 in the four boxes.

Which order would give her the largest result?

小西将 2、0、2、5 四个数字填入四个方框中。

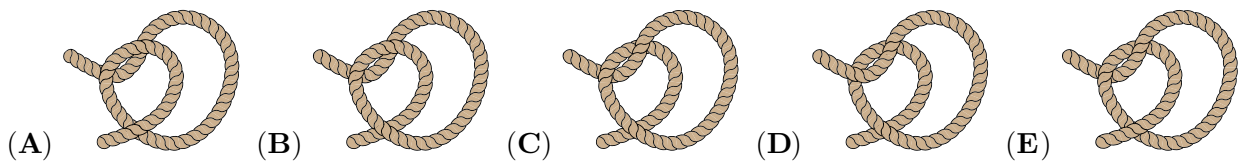
请问哪种顺序能让她得到最大的结果？

$$\square - \square + \square + \square$$

- (A) 5, 2, 2, 0 (B) 5, 2, 0, 2 (C) 5, 0, 2, 2 (D) 2, 2, 5, 0 (E) 2, 2, 0, 5

3. Which rope ties into a knot when the ends are pulled?

请问下面哪根绳子在两端拉紧时会打成结？

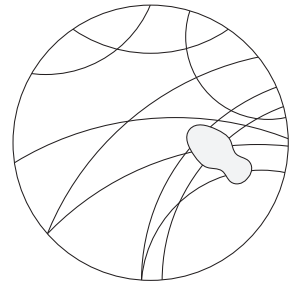


4. Alex stepped on some tracks on the ground.

What is beneath her shoe?

小艾踩到了地上的一些印记。

请问她鞋底的图案是什么样子的？



- (A)
- (B)
- (C)
- (D)
- (E)

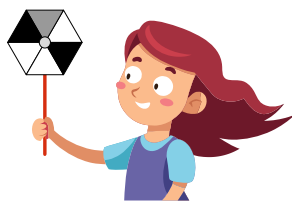
5. On a normal dice, the total number of spots on two opposite faces is always 7.

Which one of the dice shown could be a normal dice?

在一个标准的骰子上，相对的两个面上的点数之和总是 7。

请问下面哪个骰子可能是一个标准的骰子？

- (A)
- (B)
- (C)
- (D)
- (E)



6. Larissa spins her sail.

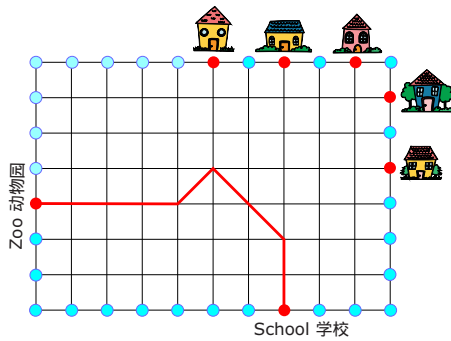
Which of the sails below is hers?

小拉在旋转她的风车。请问下面哪个风车是她的？

- (A)
- (B)
- (C)
- (D)
- (E)

7. Kenny the Kangaroo jumps from the School to the Zoo as follows: $\uparrow 2$, $\nwarrow 2$, $\swarrow 1$, $\leftarrow 4$, as shown in the picture.

袋鼠小肯从学校跳到动物园，路线如下： $\uparrow 2$, $\nwarrow 2$, $\swarrow 1$, $\leftarrow 4$ ，如图所示。

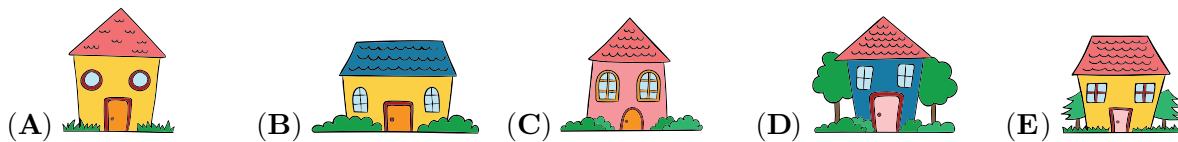


Then, he jumps from the Zoo as follows: $\rightarrow 5$, $\nearrow 2$, $\uparrow 2$.

Which house will he get to?

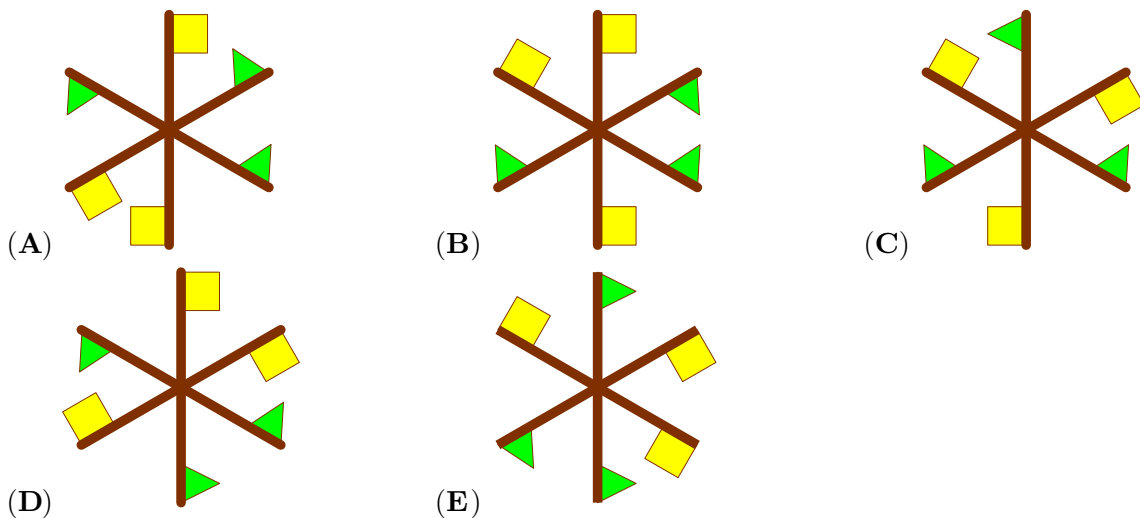
然后，它从动物园出发，按如下路线跳跃： $\rightarrow 5$, $\nearrow 2$, $\uparrow 2$ 。

请问它会跳到哪座房子？



8. Which pinwheel can Jorge build with these 3 rods?

请问小豪可以用这 3 根小棒搭建出哪个风车？



4 points

9. Nico and his little sister pay with shells and marbles in their playshop.

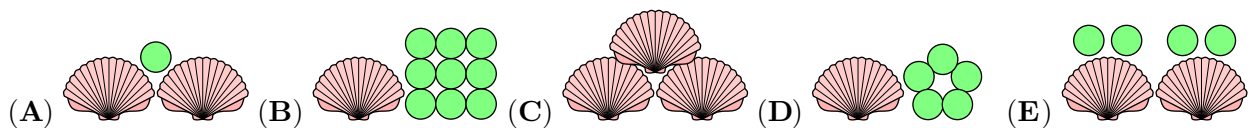
Each shell has a value of 6 and each marble has a value of 1.

Which of the following has a total value of 15?

小尼和妹妹在玩商店游戏时，用贝壳和弹珠来支付。

每个贝壳价值为 6，每个弹珠价值为 1。

请问下列哪个选项的总价值是 15？



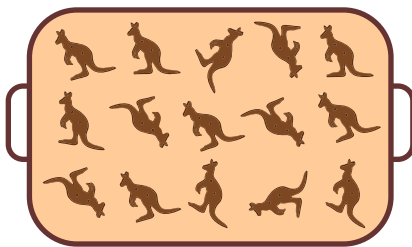
10. Anna, Bonnie and Caspar have some kangaroo cookies on their plates, as shown.

小安、小波和小卡的盘子里各有一些袋鼠饼干，如图所示。



They then share the remaining 15 cookies on the tray so that everyone now has the same number of cookies on their plates.

接下来他们分享了托盘上剩余的 15 块饼干，现在，每个人盘子里的饼干数量相同。



How many more cookies does Bonnie get?

请问小波又得到了多少块饼干？

- (A) 4 (B) 5 (C) 6 (D) 7 (E) 8

11. In the morning, 5 friends had identical fully-charged mobile phones.

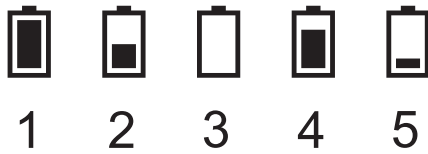
By the evening, Bob had spoken on the phone as much as Ann and Cristina together.

Bob ran out of power. David had not used his phone at all. Which phone belonged to Edward?

早上，5 个朋友各自拥有一部充满电且型号相同的手机。

到了晚上，小鲍的通话时间等于小安和小克通话时间的总和。

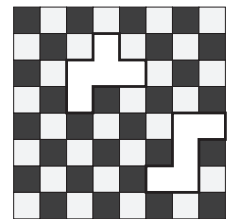
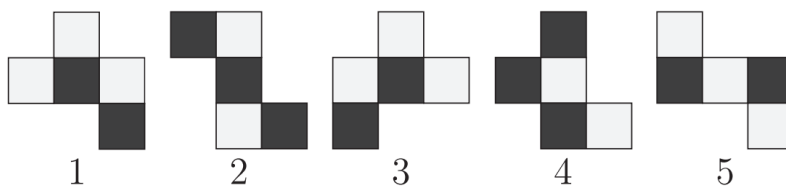
小鲍的手机没电了，小戴没有使用手机。请问哪部手机是小爱的？



- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5

12. Which two of the pieces shown below complete the chessboard?

请问下面哪两块碎片可以补全这个棋盘？



- (A) Pieces 1 and 2 碎片 1 和 2
(B) Pieces 1 and 5 碎片 1 和 5
(C) Pieces 3 and 4 碎片 3 和 4
(D) Pieces 3 and 5 碎片 3 和 5
(E) Pieces 4 and 5 碎片 4 和 5

13. In the petting zoo, Renée feeds 6 sheep.

She gives them a total of 210 grams of dry food for lunch.

She gives the smallest sheep twice as much food as she gives to each of the others.

How much does the smallest sheep get?

在宠物动物园里，小芮给 6 只羊分发了 210 克干粮作为午餐。

最小的羊获得的干粮是其他每只羊的两倍。

请问最小的羊得到了多少克干粮？



- (A) 55 grams 55 克 (B) 60 grams 60 克 (C) 70 grams 70 克
(D) 75 grams 75 克 (E) 80 grams 80 克

14. Tom wishes to slice a pizza into 2 halves.

He also wishes to have the same number of tomatoes on each half.

It is possible for him to do this with two different cuts.

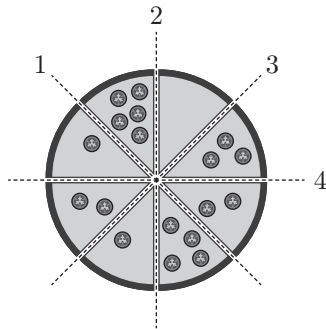
Along which lines could he cut?

小汤想把一个披萨切成两半。

他还希望每半个披萨上的番茄数量相同。

已知他可以通过两种不同的切法来实现这一点，

请问他可以沿着哪些线来切这个披萨呢？



- (A) 1 and 3 1 和 3 (B) 1 and 4 1 和 4 (C) 2 and 3 2 和 3
(D) 2 and 4 2 和 4 (E) 3 and 4 3 和 4

15. Maria fills the circles with the numbers 1, 2, 3, 4, 5, 6 and 7.

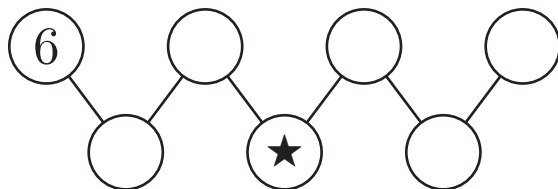
The number in each of the lower circles is equal to the sum of the two numbers in the connected circles above it.

What number is in the circle marked with ★?

小玛在圆圈里填入数字 1、2、3、4、5、6 和 7。

图片中位于下方的每个圆圈里的数字等于与它相连的上方两个圆圈中的数字之和。

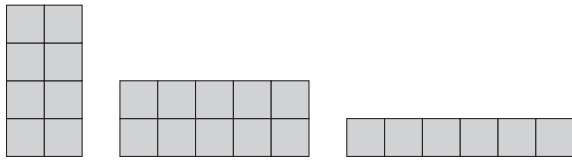
请问标有 ★ 的圆圈里的数字是什么？



- (A) 2 (B) 3 (C) 4 (D) 5 (E) 7

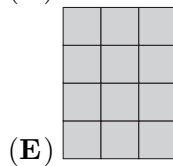
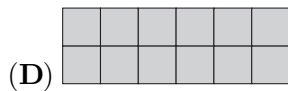
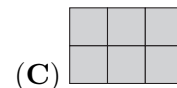
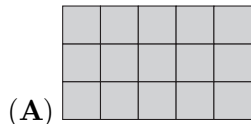
16. Bob makes a square from 4 rectangular pieces. 3 of the pieces he uses are shown.

小鲍用 4 块长方形碎片拼出了一个正方形。其中 3 块碎片如图所示。



Which of the following is the fourth piece he uses?

请问下列哪个选项是他用的第四块碎片？



5 points

17. 6 ladybirds have 1, 2, 3, 4, 5 or 6 spots each. Marta took 4 photos of them in groups of 3.

Each ladybird appeared the same number of times in the photos.

3 of the photos, along with the outline of the fourth photo, are shown here.

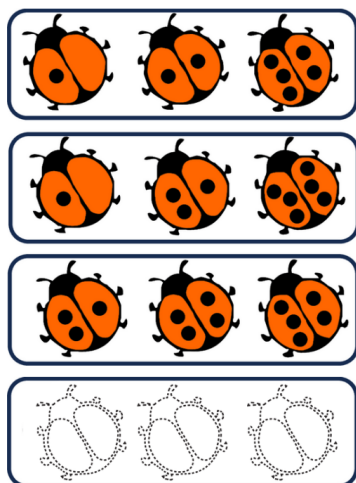
How many spots do the three ladybirds in Marta's fourth photo have in total?

6 只瓢虫身上的斑点数量分别为 1、2、3、4、5 或 6。小玛给它们拍摄了 4 张照片，每张照片里有 3 只瓢虫。

每只瓢虫在照片中出现的次数相同。

其中 3 张照片和第四张照片的轮廓如图所示。

请问在小玛拍摄的第四张照片里，三只瓢虫身上的斑点总数是多少？



(A) 9

(B) 10

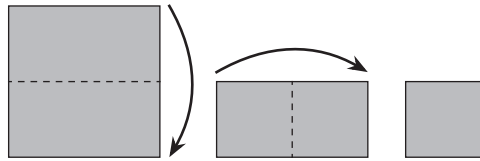
(C) 11

(D) 12

(E) 23

18. Nela folds a paper square in half and then in half again, as shown.

小娜把一张正方形纸对折两次，如图所示。

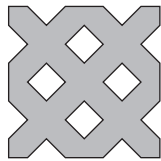


Next she cuts pieces out of the folded paper.

After unfolding she sees a paper snowflake.

接着，她从折好的纸上剪掉了几块。

展开后，她看到了一张纸雪花。



How did she cut the folded piece of paper?

请问她是如何裁剪这张折好的纸的呢？

- (A) (B) (C) (D) (E)

19. Leonia has built a pyramid using black and grey cubes.

She arranges each cube so each face does not touch a face of another cube with the same colour.

One of the black cubes is shown in the figure.

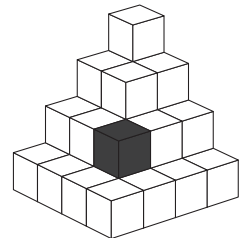
What will Leonia's pyramid look like from above?

小莉用黑色和灰色的立方体搭建了一个金字塔。

她在摆放每个立方体时，都确保该立方体的每个面都不与其他同色立方体的面接触。

其中一个黑色立方体如图所示。

请问从上面看，小莉的金字塔是什么样子的？



- (A) (B) (C) (D) (E)

20. The picture shows the page for one month of a calendar, without any of the dates.

图中展示了一个月的日历页，但没有标注日期。

Mon 星期一	Tue 星期二	Wed 星期三	Thu 星期四	Fri 星期五	Sat 星期六	Sun 星期日

The total of the dates for the 2 shaded days is 31.

On what day of the week does the first day of the month fall?

已知两个阴影处的日期之和是 31。

请问这个月的第一天是星期几？

- (A) Monday 星期一 (B) Tuesday 星期二 (C) Wednesday 星期三
(D) Thursday 星期四 (E) Sunday 星期日

21. The construction uses 11 identical bricks.

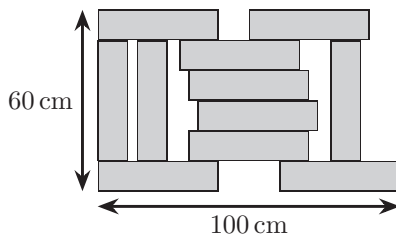
The construction has length 100 cm and width 60 cm.

What is the size of each brick?

如图所示的建筑使用了 11 块相同的砖。

已知该建筑的长度是 100 cm，宽度是 60 cm。

请问每块砖的尺寸是多少？



- (A) 8 cm 40 cm (B) 10 cm 40 cm (C) 12 cm 40 cm
(D) 8 cm 44 cm (E) 10 cm 50 cm

22. Rossitza has written down the number of pieces of different fruit that she has.

Unfortunately, some digits have been covered by paint.

In total, she has 106 pieces of fruit. The number of pieces of two of the types of fruit she has are equal.

She has twice as many of one type of fruit as she does of some other type.

She has more than 10 pieces of each type of fruit.

How many bananas does she have?

小罗写下了她拥有的不同水果的数量。

不幸的是，一些数字被颜料遮住了。

已知她一共有 106 个水果。其中有两种水果的数量相同。

有一种水果的数量是另一种的两倍。

且每种水果的数量均超过 10 个。

请问她有多少根香蕉？

2	mangoes	芒果
0	apples	苹果
1	pears	梨
3	bananas	香蕉
30	oranges	橙子
106		

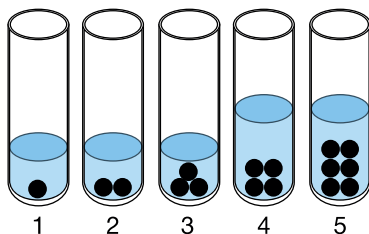
- (A) 13 (B) 23 (C) 43 (D) 53 (E) 63

23. Identical balls have been placed in 5 identical test tubes, as shown.

Then, water is added to each of these test tubes.

5 个相同的试管中放入了相同规格的球，如图所示。

接着，往每个试管中加水。



The water levels in test tubes 1, 2, and 3 are the same.

The water levels in test tubes 4 and 5 are also the same and twice as high as in the first 3 test tubes.

Then, all the balls are removed.

Which test tube has the least water?

试管 1、2 和 3 的水位相同。

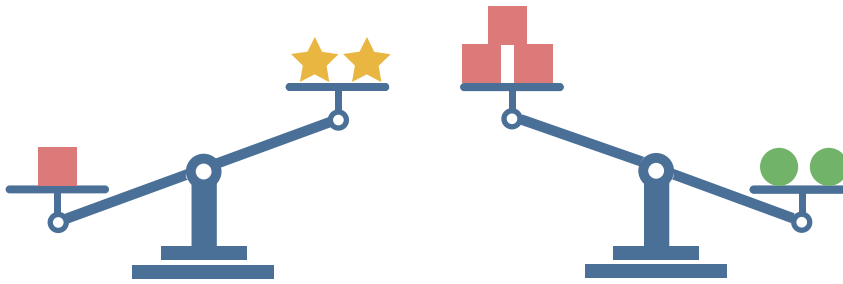
试管 4 和 5 的水位也相同，且是前 3 个试管水位的两倍。

然后，把所有的球取出来。

请问哪个试管里的水最少？

- (A) Test tube 1 试管 1 (B) Test tube 2 试管 2 (C) Test tube 3 试管 3
(D) Test tube 4 试管 4 (E) Test tube 5 试管 5

24. A pair of scales is used to weigh 3 different objects, and the results are shown below.
用一对天平称量 3 种不同的物体，结果如下图所示。



Each type of object has a different mass. The masses can be 1, 2, 3, 4, or 5 kg.

What is the mass of one  in kilograms?

每种物体的质量不同，已知它们的质量可能是 1、2、3、4 或 5 千克。

请问一个  的质量是多少千克？

- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5