2024

KENGURUKONKURRANSEN
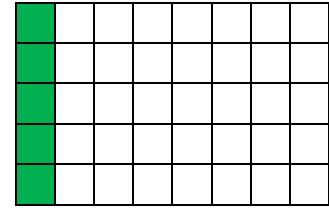
Problems in English

**Ecolier**

(4.–5. trinn)

3 points

1. The table consists of 40 white cells.
Ira has painted 1 column.
She is going to paint one more column.

How many cells will then remain white?

(A) 8   (B) 12   (C) 15   (D) 24   (E) 30

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2. Joey starts in the colored square. The direction of the arrows shows the direction of the jump. The numbers of arrows determine the length of the jump. A square with three arrows means he will jump over two squares and land in the third square.
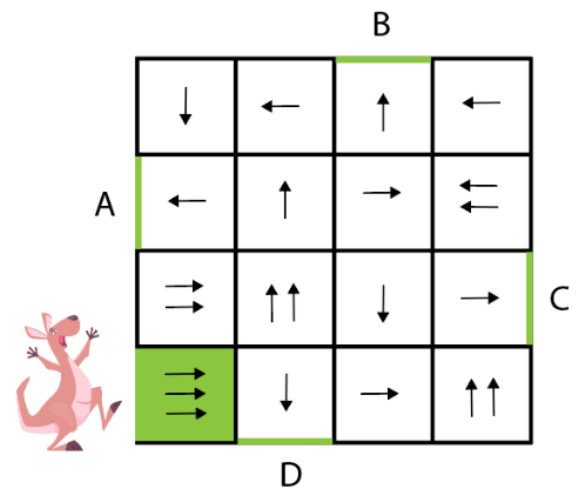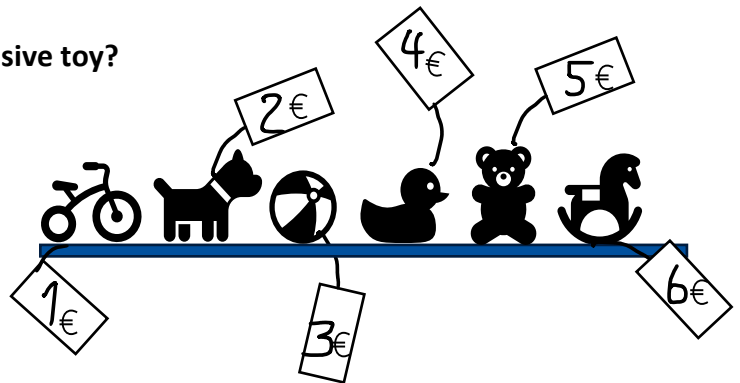
From which square will Joey exit the maze?

(A) A   (B) B   (C) C   (D) D   (E) He will not get out of the maze
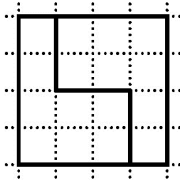
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3. Lina buys 3 of these toys.
She pays 7 euro (€).

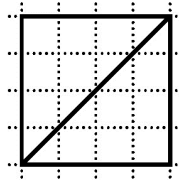**What did she pay for her most expensive toy?**

(A) 2 euro   (B) 3 euro   (C) 4 euro   (D) 5 euro   (E) 6 euro
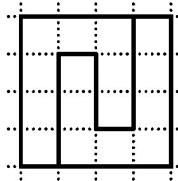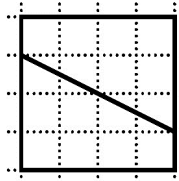
4. **Which square is cut into two different shapes?**

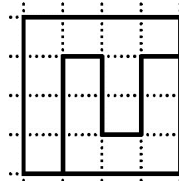(A)   (B)   (C)   (D)   (E)
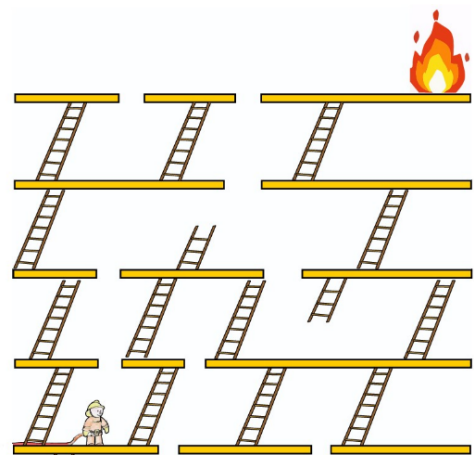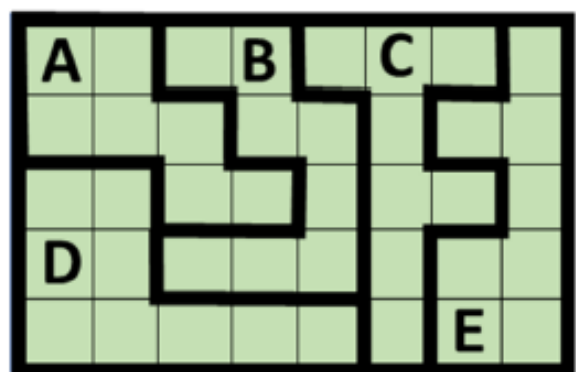
5. **What is the smallest number of ladders the firefighter must use to reach the fire without jumping?**

(A) 4   (B) 5   (C) 6   (D) 7   (E) 8
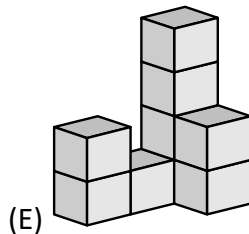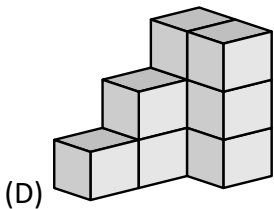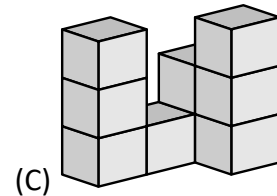
6. A garden is divided into five plots.

   Which of the plots is the largest one?

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

7. A cat knocks off one block of Felix's construction.

What could this construction have looked like before the block was knocked off?

(A)

(B)

(C)

(D)

(E)
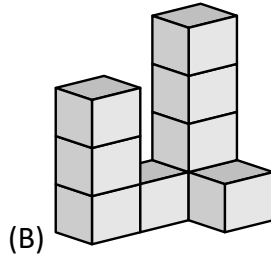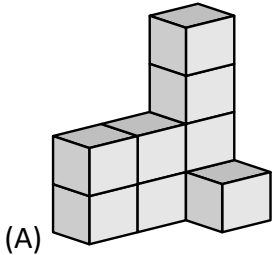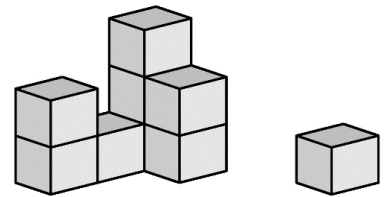
8. Soccer players numbered 1 to 11 stand in a circle.
Each player kicks the ball to the third player on their left.
Player 1 starts.
The kicking pattern continues until a player has the ball for the second time.
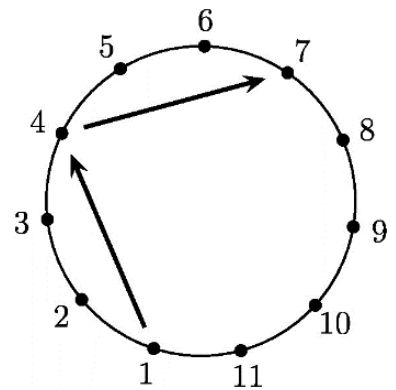
What is the number of the player who *kicked* the ball last?

(A) 7 (B) 8 (C) 9 (D) 10 (E) 11

4 points

9. Alex has a Kangaroo poster on the kitchen wall.

How many grey tiles are there behind the poster?

(A) 15 (B) 21 (C) 25 (D) 30 (E) 35

3

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10. Mona wrote three consecutive 4-digit numbers in a row.
For example, 213, 214, 215 are three consecutive 3-digits number.
Her sister erased some digits.

$$\_\_\_7, \ \_898, \ 48\_\_$$

What are the missing digits?

(A) 389, 3, 99   (B) 489, 3, 96   (C) 489, 4, 98   (D) 489, 4, 99   (E) 488, 4, 99

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11. Place the numbers 1, 2, 4, 5 and 6 in the circles.
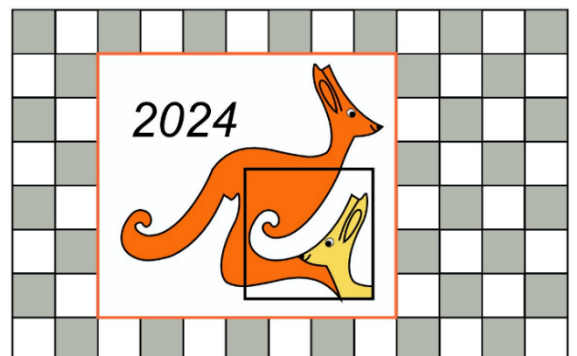Each circle should contain one number, and each number can only be used once. The sum of the numbers on the same line, should be 11.
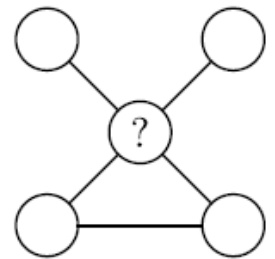
Which number must be placed in the circle with the question mark?

(A) 1   (B) 2   (C) 4   (D) 5   (E) 6

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12. There are five different kinds of fruit in a bowl:

Ann likes

Billy likes

Carl likes

Dan likes

Elin likes

Everyone gets a fruit they like. Everyone gets a different kind of fruit.

What does Billy get?

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

13. A student has three cards with numbers on them. Their sum is 782.
Unfortunately, a worm ate part of each card.


What is the sum of the 3 missing digits?

(A) 8   (B) 9   (C) 10   (D) 11   (E) 12

14. Ada has built the tower of 8 discs, as in the picture.
Ada removes the second disc from the bottom of this tower.
Then she removes the third disc from the bottom of the new tower.
Then she removes the fourth disc from the bottom of the new tower.
Then she removes the fifth disc from the bottom of the new tower.
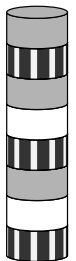
Which tower does Ada end up with?

(A)   (B)   (C)   (D)   (E)
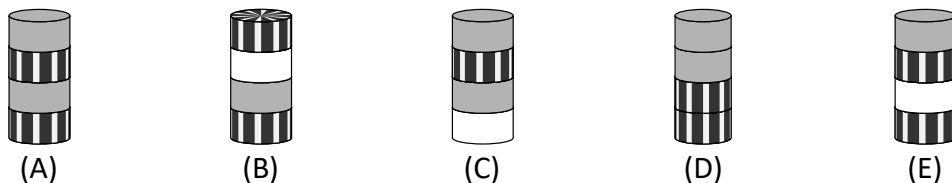
15. Seven cards, numbered 1 to 7, are paced in four overlapping rings.
The sum of the numbers in each ring is 10.
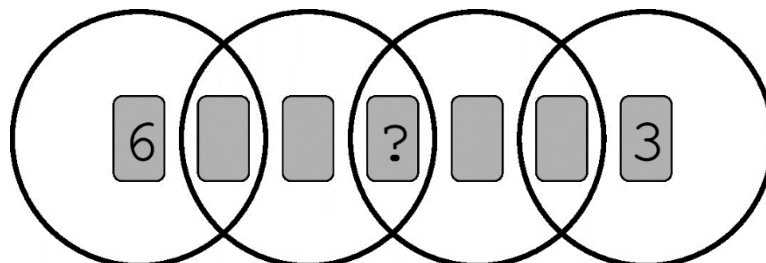
Which number is under the question mark?

(A) 1   (B) 2   (C) 4   (D) 5   (E) 7

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16. Peter the penguin goes fishing every day and brings back 9 fish for his two chicks. Each day, he gives 5 fish to the first chick he sees and 4 fish to the second chick, which they eat.
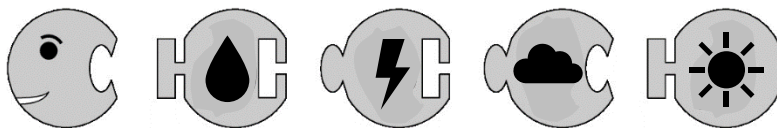Over the last few days one chick has eaten 26 fish.

How many fish has the other chick eaten?

(A) 19   (B) 22   (C) 25   (D) 28   E) 31

5 points

17. Lucas wants to make a caterpillar that has a head, a tail and either 1, 2 or 3 puzzle pieces in between.
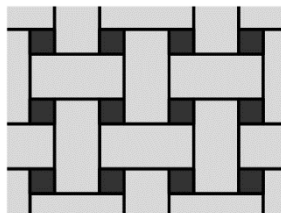

How many different caterpillars can Lucas make without flipping pieces?

(A) 3   (B) 4   (C) 5   (D) 6   (E) 7

18. A floor is made of two kinds of tiles:
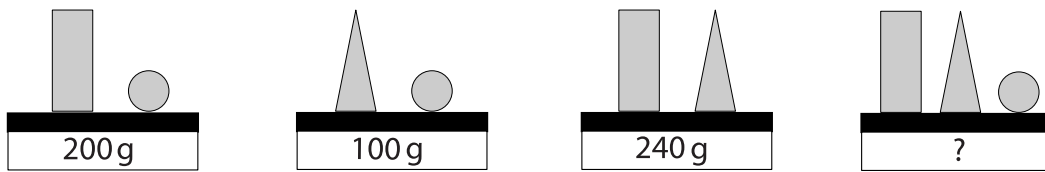

The rectangles have size 23 cm x 11 cm.
The picture shows a part of this floor.

What is the side-length of the square tiles?

(A) 3 cm   (B) 4 cm   (C) 5 cm   (D) 6 cm   (E) 7 cm

19. Lucy weighs some blocks.

| 200 g | 100 g | 240 g | ? |

How much do the three different blocks weigh together?

(A) 270 g   (B) 280 g   (C) 290 g   (D) 300 g   (E) 310 g

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20. There are 60 pupils on a trip.
When they line up, the colours of their reflective vests follow the pattern: green, yellow, green, yellow…
The colours of their backpacks follow a different pattern: red, brown, orange, red, brown, orange…

How many pupils with a yellow reflective vest also have an orange backpack?

(A) 3   (B) 4   (C) 6   (D) 8   (E) 10

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21. In the following calculations, the same digits are hidden under the same figures. Different digits are hidden under different figures.

△ + △ = ▢ ◯

◯ + △ = ▢ ▢

What is the value of △ × ◯ × ▢ **?**

(A) 0   (B) 15   (C) 18   (D) 28   (E) 30

22. The figure below shows a beehive with 9 cells. There is honey in some cells.
The number in each cell shows how many neighbouring cells contain honey.
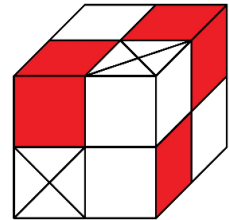Neighbouring cells have a side in common.
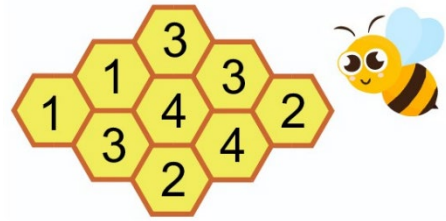
How many cells contain honey?

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

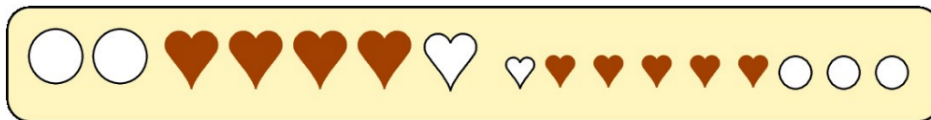**23.** There are 2 types of blocks: white and red

A small cube can be made of 4 white blocks or of 1 white and 1 red
block. The large cube shown in the picture is made of small cubes.

What is the smallest number of white blocks needed to make the large cube?

(A) 8   (B) 11   (C) 13   (D) 14   (E) 23

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24. Per, Paul, and Espen go to the tray one after the other and take some cookies.

Per takes all the hearts available on the tray.
Paul takes all the white cookies available on the tray.
Espen takes all the large cookies available on the tray.
However, they do not necessarily take the cookies in this order.

One boy takes 3 cookies, one takes 6 cookies, and one takes 7 cookies.

Which of the following sets of cookies does one of the boys take?

(A)   (B)   (C)

(D)   (E)

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