Canguro Matemático Costarricense

Ecolier Test
Third grade

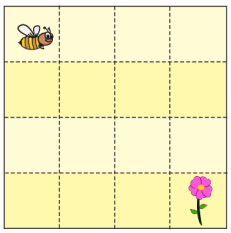
Name of the student:_____

Name of the institution:_____

Kangourou Sans Frontières
Costa Rica 2022

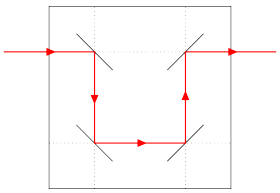
3 points

1. Buzz the bee wants to reach the flower.

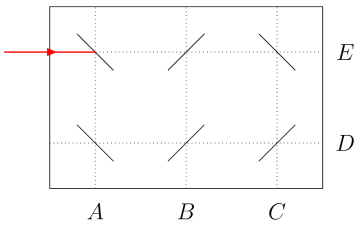


Which set of directions will get him there?

(**A**) → ↓ → ↓ ↓ →
(**B**) ↓ ↓ → ↓ ↓
(**C**) → ↓ → ↓ →
(**D**) → → ↓ ↓ ↓
(**E**) ↓ → → ↓ ↓ ↓



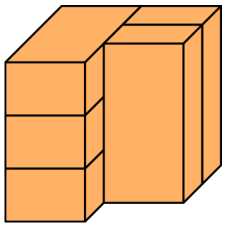
2. Laser beams reflect in mirrors in the way shown in the picture.



At which letter will this laser beam end?

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

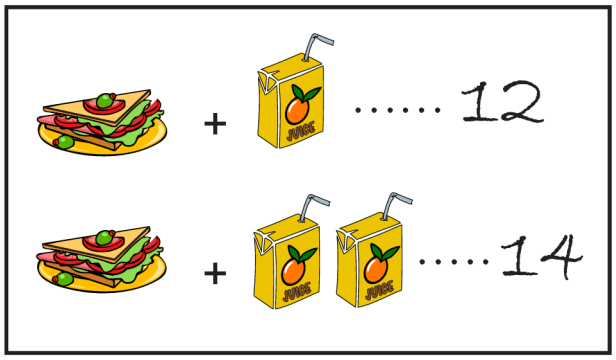
3. The picture shows 5 identical bricks.



How many bricks are touching exactly 3 other bricks?

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

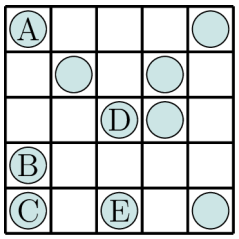
4. One sandwich and one juice together cost 12 coins. One sandwich and two juices together cost 14 coins.



How many coins does one juice cost?

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

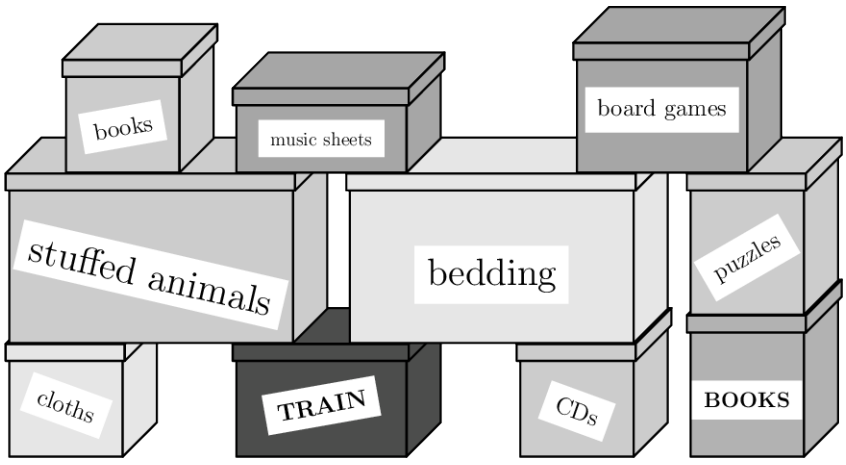
5. Rossitza wants to put 2 coins in each row and in each column of the grid.



Which coin does she need to move to an empty cell?

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

6.



What is the smallest number of boxes that Bill has to move to be able to open the dark TRAIN box?

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

7. $22 + \square = 20 + \square$

Which two numbers can be written in the two boxes to make the statement correct?

(**A**) 3 and 5 (**B**) 4 and 1 (**C**) 3 and 4 (**D**) 7 and 2 (**E**) 9 and 8

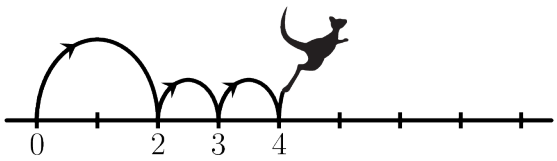
8. Kanga wrote down a number and then covered each digit with a shape. Different digits were covered by different shapes, and the same digits were covered by the same shape.

Which number could be written under these shapes?

(**A**) 34426 (**B**) 34526 (**C**) 34423 (**D**) 34424 (**E**) 32446

4 points

9. Kengu always makes one large jump followed by two small jumps on the number line, as shown in the picture.



Kengu starts at 0 and ends on 16. What is the number of jumps that Kengu makes?

(**A**) 4 (**B**) 7 (**C**) 8 (**D**) 9 (**E**) 12

10. Anna makes a jigsaw where two squares with common sides do not contain the same number.

3	2	5	4	2	1
1	4	3	1	3	4
2	5		5	2	1
4	1				3
3	2	4	2	5	2
4	1	3	1	3	4

Which piece should she use to complete her jigsaw?

(**A**)

4		
1	2	3

(**B**)

1		
3	4	2

(**C**)

2		
4	1	3

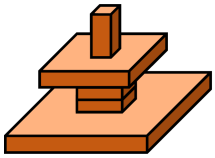
(**D**)

2		
3	1	4

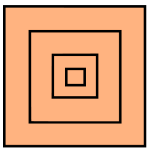
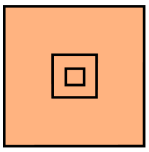
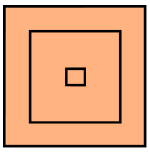
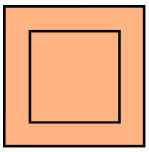
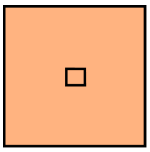
(**E**)

3		
2	1	4

11. John builds the tower shown.



What will he see if he looks at his tower from above?

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

12. Five cars numbered 1, 2, 3, 4 and 5 are moving in the same direction.

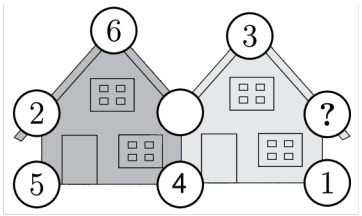
First, the last car (5) overtakes the two cars ahead of it. Next, the second last car overtakes the two cars ahead of it. Finally, the middle car overtakes the two cars ahead of it.
In what order are the cars now?

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

13. The ages of a family of kangaroos are 2, 4, 5, 6, 8 and 10 years. The sum of the ages of four of them is 22 years.
What are the ages of the other two kangaroos?

(**A**) 2 and 8
(**B**) 4 and 5
(**C**) 5 and 8
(**D**) 6 and 8
(**E**) 6 and 10

14. The sum of the five numbers in each house is 20. Some numbers have been painted over.



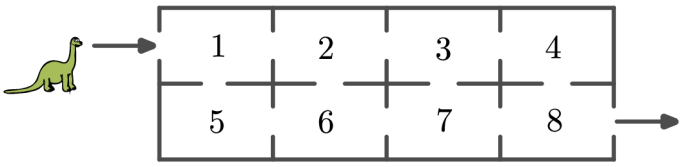
What number is hidden under the question mark?

(**A**) 3 (**B**) 4 (**C**) 7 (**D**) 9 (**E**) 14

15. Three zebras take part in a contest. The winner is the zebra with the most stripes. Runa has 15 stripes, Zara has 3 more than Runa. Runa has 5 fewer stripes than Biba. How many stripes does the winner have?

(**A**) 16 (**B**) 18 (**C**) 20 (**D**) 21 (**E**) 22

16. Dino moves from the entrance to the exit by going through rooms. He can only go through each room once.



Dino adds up the numbers as he passes through each room. What is the highest total Dino can make?

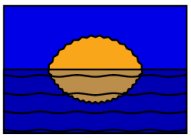
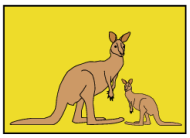
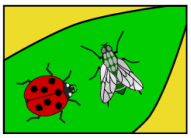
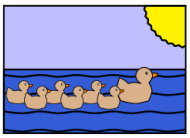
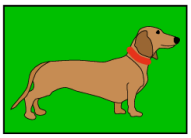
(**A**) 27 (**B**) 29 (**C**) 32 (**D**) 34 (**E**) 36

5 points

17. During my holiday I sent the five postcards shown below to my friends.

There are **no** ducks on Mike's card.
Cara's card has the sun on it.
There are exactly two living creatures on Paula's card.
Lexi's card has a dog on it.
There are kangaroos on Heather's card.

Which card did Mike get?

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

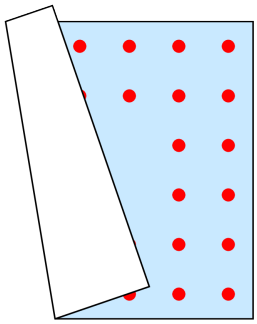
18. Mosif wanted the sum of the three numbers in each row and in each column of the grid to be the same.
He made one mistake.

9	1	5
3	7	6
4	7	4

Which number must he correct?

(**A**) 1 (**B**) 3 (**C**) one of the 4s
(**D**) 5 (**E**) one of the 7s

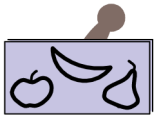
19. Aladdin has a square carpet. There are the same number of dots, arranged in two lines, along each side of his carpet. Unfortunately, the carpet has folded.



How many dots are there on Aladdin's carpet?

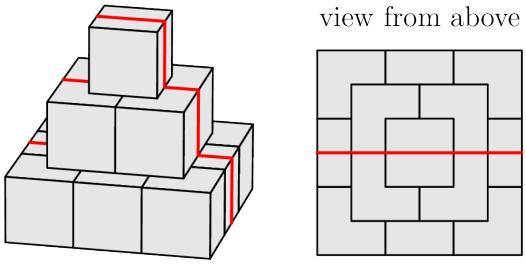
(**A**) 48 (**B**) 44 (**C**) 40 (**D**) 36 (**E**) 32

20. Which of the following pictures will we see when we use the stamp shown?



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

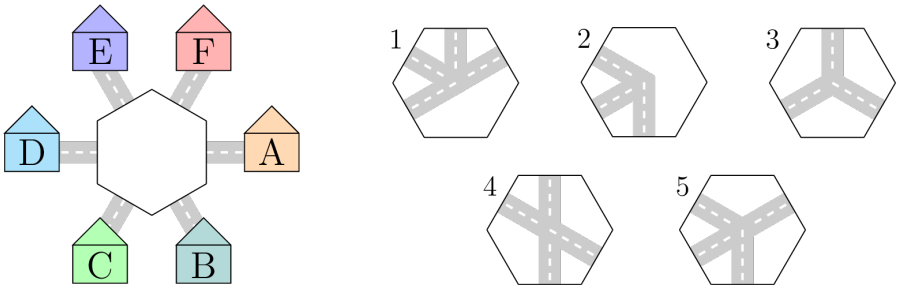
21. A pyramid is built from cubes with a side-length of 10 cm. An ant climbed up and over the pyramid, as shown by the red line.



What is the length of the path walked by the ant across the pyramid?

(**A**) 30 cm (**B**) 60 cm (**C**) 70 cm
(**D**) 80 cm (**E**) 90 cm

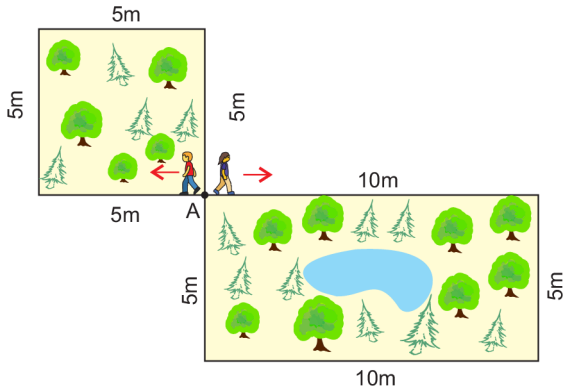
22. Alma wants to put one of the pieces shown in the middle of the picture so that a child in A is able to travel to B and to E, but not to D. She can rotate the pieces.



Which two pieces could she use?

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

23. Ahmad and Zhaleh start moving from point **A** with the same speed, in the directions shown.



Ahmad walks around the square-shaped garden and Zhaleh walks around the rectangular-shaped one. They meet again at **A**. What is the smallest number of laps around the square-shaped garden that Ahmad could do to meet Zhaleh there?

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

Name:_____

Institution:_____

01.	A	B	C	D	E
02.	A	B	C	D	E
03.	A	B	C	D	E
04.	A	B	C	D	E
05.	A	B	C	D	E
06.	A	B	C	D	E
07.	A	B	C	D	E
08.	A	B	C	D	E
09.	A	B	C	D	E
10.	A	B	C	D	E
11.	A	B	C	D	E
12.	A	B	C	D	E

13.	A	B	C	D	E
14.	A	B	C	D	E
15.	A	B	C	D	E
16.	A	B	C	D	E
17.	A	B	C	D	E
18.	A	B	C	D	E
19.	A	B	C	D	E
20.	A	B	C	D	E
21.	A	B	C	D	E
22.	A	B	C	D	E
23.	A	B	C	D	E