## Canguro Matemático Costarricense



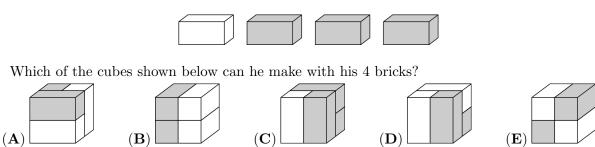
Ecolier Test Third grade

Student name:\_\_

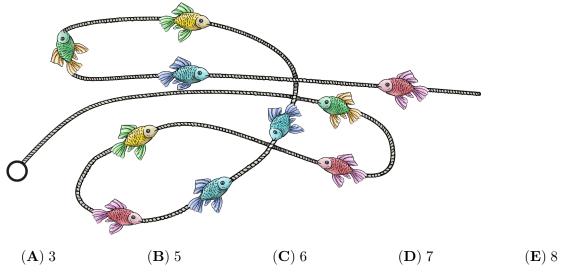
Name of the school:\_\_\_\_

Kangourou Sans Frontières Costa Rica 2021 3 points

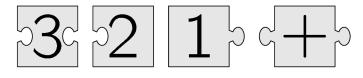
**# 1.** Erik has 4 bricks:



# 2. How many fish will have their heads pointing towards the ring when we straighten the line?



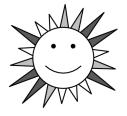
# 3. When you put the 4 puzzle pieces together correctly, they form a rectangle with a calculation on it.



What is the result of this calculation?

(A) 6 (B) 15 (C) 18 (D) 24 (E) 33

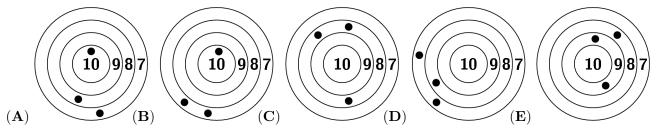
# 4. Alaya draws a picture of the sun.



Which of the following answers is part of her picture?



# 5. Five boys competed in a shooting challenge. Ricky scored the most points. Which target was Ricky's?



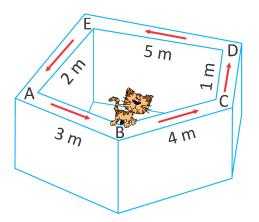
# 6. Tom encodes words using the board shown.

1	В	Κ	Ζ	Ε
2	Ρ	Α	F	Н
3	S	М	R	W
4	Ι	Ν	Т	L
	Δ	R	С	Л

For example, the word PIZZA has the code A2 A4 C1 C1 B2. What word did Tom encode as B3 B2 C4 D2?

$(\mathbf{A})$ MAZE	$(\mathbf{B})$ MASK	$(\mathbf{C})$ MILK	$(\mathbf{D})$ MATE	$(\mathbf{E})$ MATH
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# 7. Rose the cat walks along the wall. She starts at point B and follows the direction of the arrows shown in the picture. The cat walks a total of 12 metres.



Where does she end up?

 $(\mathbf{A}) \mathbf{A} \qquad (\mathbf{B}) \mathbf{B} \qquad (\mathbf{C}) \mathbf{C} \qquad (\mathbf{D}) \mathbf{D} \qquad (\mathbf{E}) \mathbf{E}$ 

# 8. Julia has two pots with flowers, as shown. She keeps the flowers exactly where they are. She buys more flowers and puts them in the pots. After that each pot has the same number of each type of flower.



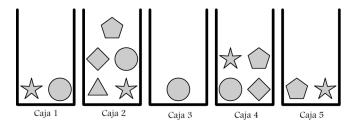
What is the smallest number of flowers she needs to buy?

4 points

# 9. Denise fired a silver and a gold rocket at the same time. The rockets exploded into 20 stars in total. The gold rocket exploded into 6 more stars than the silver one. How many stars did the gold rocket explode into?

$$(A) 9 (B) 10 (C) 12 (D) 13 (E) 15 ($$

# 10. Sofie wants to pick 5 different shapes from the boxes. She can only pick 1 shape from each box.



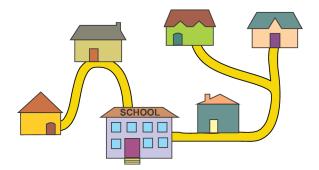
Which shape must she pick from box 4?



# 11. Julie and Angela played "kangball", a ball game. Each goal in their game scores 2 points. Julie scored 5 goals and Angela scored 9 goals. How many more points than Julie did Angela score?

(A) 4 (B) 6 (C) 8 (D) 10 (E) 12

# 12. The picture shows the five houses of five friends and their school. The school is the largest building in the picture. To go to school, Doris and Ali walk past Leo's house.



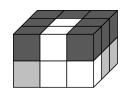
Eva walks past Chole's house. Which is Eva's house?



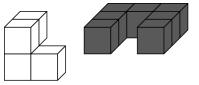
# 13. In an ice cream shop there is some money in a drawer. After selling 6 ice creams, there are 70 euros in the drawer. After selling a total of 16 ice creams, there are 120 euros in the drawer. How many euros were there in the drawer at the start?

(A) 20 (B) 30 (C) 40 (D) 50 (E) 60

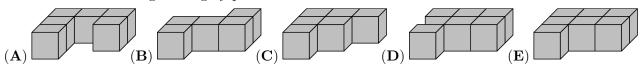
# 14. 18 cubes are coloured white or grey or black and are arranged as shown.



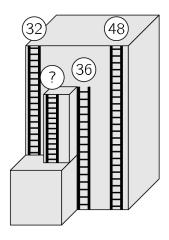
The figures on the right show the white and the black parts.



Which of the following is the grey part?



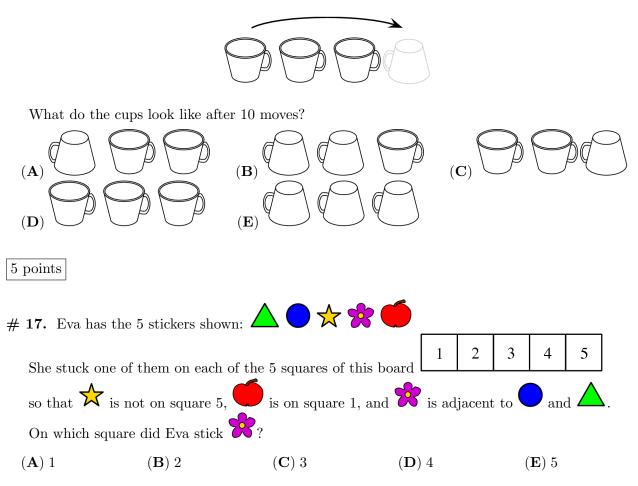
# 15. On a tall building there are 4 fire escape ladders, as shown. The heights of 3 ladders are at their tops.



What is the height of the shortest ladder?

$$(A) 12 (B) 14 (C) 16 (D) 20 (E) 22$$

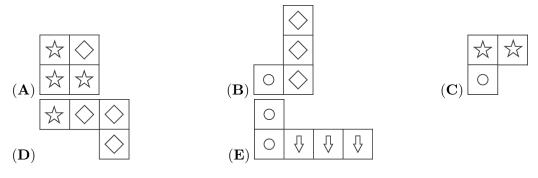
# 16. Nora plays with 3 cups on the kitchen table. She takes the left-hand cup, flips it over, and puts it to the right of the other cups. The picture shows the first move.



# 18. Mara built the square by using four of the following five shapes.

$\overrightarrow{\mathbf{x}}$	$\overrightarrow{\mathbf{x}}$	$\diamond$	
$\overrightarrow{\mathbf{x}}$	$\diamond$	$\diamond$	₽
$\overrightarrow{\mathbf{x}}$	0	$\diamond$	$\square$
$\overrightarrow{\mathbf{x}}$	0	0	0

Which shape was not used?



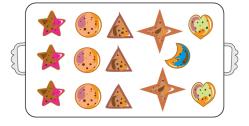
# 19. The cards shown are placed into two boxes.

2 3	4	5	6
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The sums of the numbers in each box are the same. Which number must be in the box with the number 4?

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(A) only 3 (B) only 5 (C) only 6 (D) only 5 or 6 (E) impossible to determine
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# 20. Each participant in a cooking contest baked one tray of cookies like the one shown.



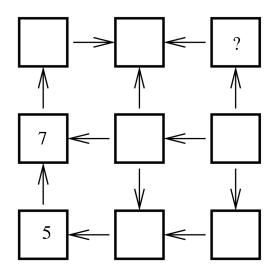
What is the smallest number of trays of cookies needed to make the following plate?



# 21. Kangie eats only apples on Monday, Wednesday and Friday. On Tuesdays and Thursdays he eats only mangoes. He eats either 2 apples or 3 mangoes a day. On Saturdays and Sundays he eats nothing. How many pieces of fruit does Kangie eat in two weeks?

(A) 12 (B) 16 (C) 18 (D) 20 (E) 24

# 22. Elena wants to write the numbers from 1 to 9 in the squares shown. The arrows always point from a smaller number to a larger one. She has already written 5 and 7.



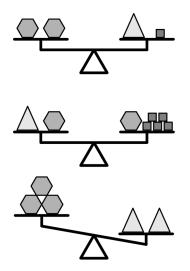
Which number should she write instead of the question mark?

$$(A) 2 (B) 3 (C) 4 (D) 6 (E) 8$$

# 23. Three girls and two boys were dancing. They danced in pairs so that each girl danced with each boy for exactly one minute. At any time, there was only one pair on the dance floor. For how many minutes did they dance?

(A) 5 (B) 6 (C) 8 (D) 9 (E) 10

# 24. Martin placed 3 different types of objects, hexagons  $\bigcirc$ , squares  $\square$  and triangles  $\bigtriangleup$ , on sets of scales, as shown.



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What does he need to put on the left-hand side on the third set of scales for these scales to balance?

 $(\mathbf{A})$  1 square  $(\mathbf{B})$  2 squares  $(\mathbf{C})$  1 hexagon  $(\mathbf{D})$  1 triangle  $(\mathbf{E})$  2 triangles

KSF 2021 - thir	d grade Ecolier
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Name:\_\_\_

## School:\_\_

01.	А	В	С	D	Е
02.	А	В	С	D	Е
03.	А	В	С	D	Е
04.	А	В	С	D	Е
05.	А	В	С	D	Е
06.	А	В	С	D	Е
07.	А	В	С	D	Е
08.	А	В	С	D	Е
09.	А	В	С	D	Е
10.	А	В	С	D	Е
11.	А	В	С	D	Е
12.	А	В	С	D	Е

