# Canguro Matemático



Costa Rica
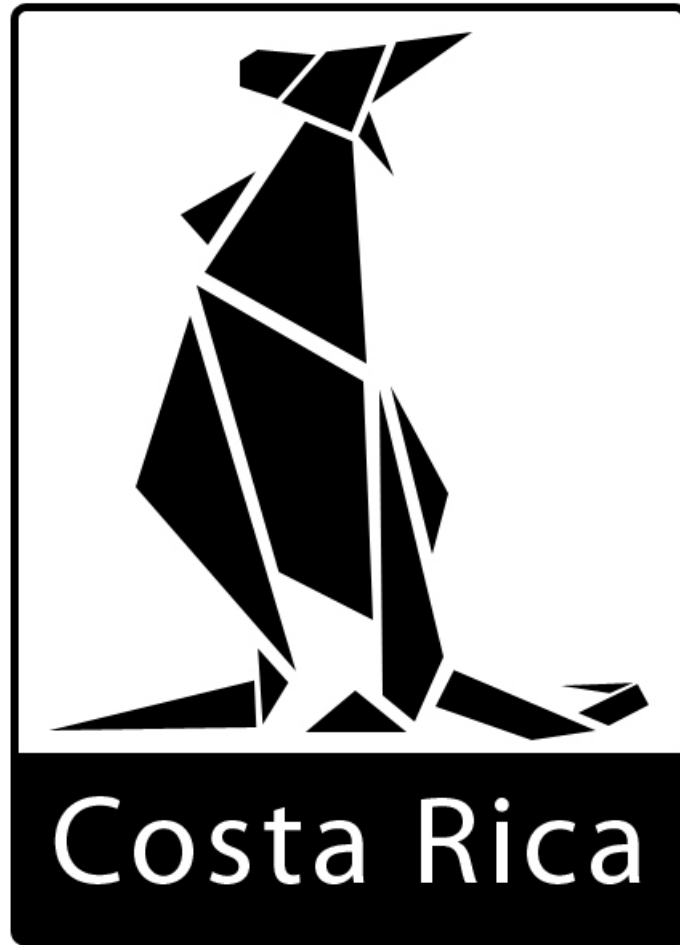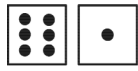
# Ecolier Test
### Fourth grade
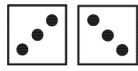
Kangourou Sans Frontières
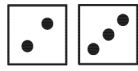
Costa Rica 2016

3 puntos

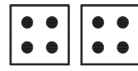**1.** Amy, Bert, Carl, Doris and Ernst each rolled two dice and added the number of dots. Who rolled the largest total?
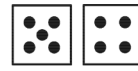
Amy      Bert      Carl      Doris      Ernst

(**A**) Amy          (**B**) Bert          (**C**) Carl          (**D**) Doris          (**E**) Ernst

**2.** Small Kanga is 7 weeks and 2 days old. In how many days will Kanga be 8 weeks old?

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

**3.**

$17+3$      $20-16$

□   +   □

?
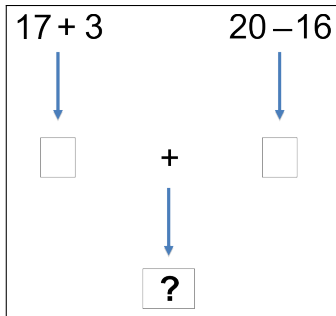
(**A**) 24          (**B**) 28          (**C**) 36          (**D**) 56          (**E**) 80

**4.** What does Pipo see when he looks at himself in the mirror?

(**A**)

(**B**)

(**C**)

(**D**)

(**E**)
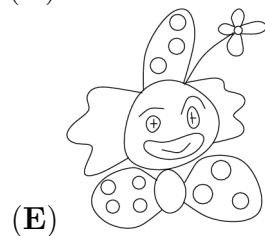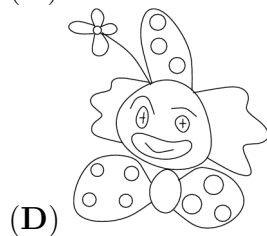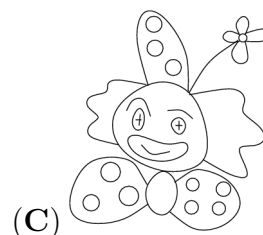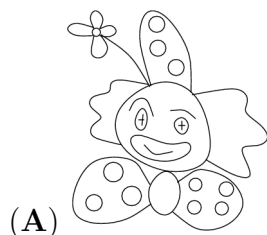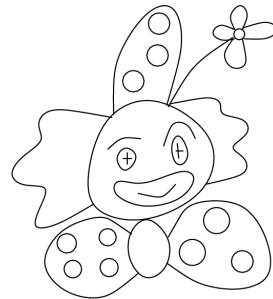
**5.** Geoff goes with his father to a circus. Their seats are numbered 71 and 72. Which way should they go?

⟰ seats 1 to 20
⟹ seats 21 to 40
⟸ seats 41 to 60
⟗ seats 61 to 80
⟘ seats 81 to 100
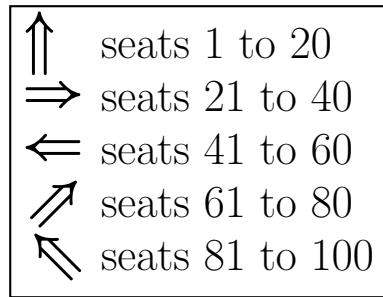
(**A**) ⟰  (**B**) ⟹  (**C**) ⟸  (**D**) ⟗  (**E**) ⟘

**6.** Anna shares some apples between herself and 5 friends. Everyone gets half of an apple. How many apples does she share?

(**A**) 2 and a half  (**B**) 3  (**C**) 4  (**D**) 5  (**E**) 6

**7.** A rectangle is partly hidden behind a curtain. What shape is the hidden part?
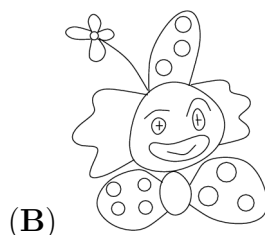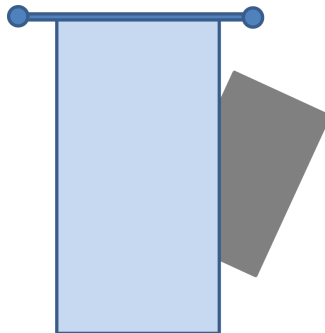
(**A**) A triangle  (**B**) A square  (**C**) A hexagon  (**D**) A circle  (**E**) A rectangle

**8.** Which one of the following sentences correctly describes the picture?
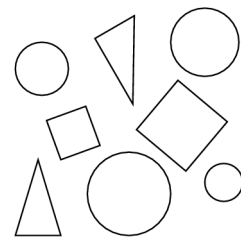
(**A**) There are as many circles as squares.
(**B**) There are fewer circles than triangles.
(**C**) There are twice as many circles as triangles.
(**D**) There are more squares than triangles.
(**E**) There are two triangles more than circles.

4 puntos

**9.** The sum of the digits of the year 2016 is equal to 9. What is the next year, after 2016, where the sum of the digits of the year is equal to 9 again?

(**A**) 2007 (**B**) 2025 (**C**) 2034 (**D**) 2108 (**E**) 2134

**10.** The mouse wants to escape from the maze. How many different paths can the mouse take without passing through the same gate more than once?
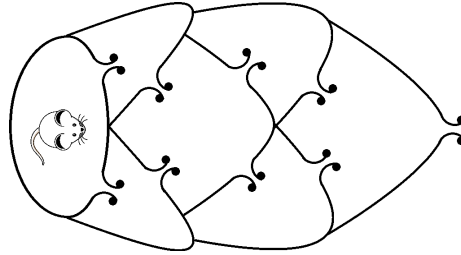


(**A**) 2 (**B**) 4 (**C**) 5 (**D**) 6 (**E**) 7

**11.** Which tile fits in the middle such that only lines with the same colour touch each other?
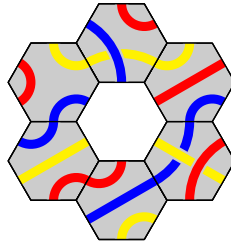


(**A**) (**B**) (**C**) (**D**) (**E**)

**12.** Which three of the five jigsaw pieces shown can be joined together to form a square?
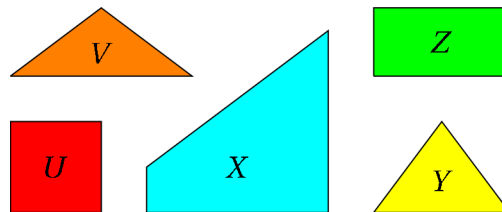


(**A**) 1, 3 and 5 (**B**) 1, 2 and 5 (**C**) 1, 4 and 5 (**D**) 3, 4 and 5 (**E**) 2, 3 and 5

**13.** Zoe has two cards. She wrote a number on both sides of each card. The sum of the two numbers on the first card is equal to the sum of the numbers on the second card. The sum of the four numbers is 32. What could be the two numbers on the sides that we cannot see?

$$\boxed{5} \qquad \boxed{12}$$

(**A**) 7 and 0      (**B**) 8 and 1      (**C**) 11 and 4      (**D**) 9 and 2      (**E**) 6 and 3

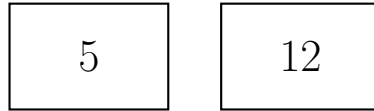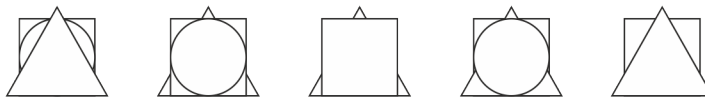**14.** Five children had a paper square, a paper triangle and a paper circle. Every child placed their own papers in a pile, as shown in the pictures. How many children placed the triangle above the square?

(**A**) 0      (**B**) 1      (**C**) 2      (**D**) 3      (**E**) 4

**15.** Loes has started to write some numbers in the table. She decides that each row and column will contain the numbers 1, 2 and 3 exactly once. What is the sum of the numbers that she will write in the two shaded squares?

| 1 |   |   |
|---|---|---|
|   | 2 | A |
|   |   | B |

(**A**) 2      (**B**) 3      (**C**) 4      (**D**) 5      (**E**) 6

**16.** John has a board with 11 squares. He puts a coin in each of eight neighbouring squares without leaving any empty squares between the coins. What is the minimum number of squares in which one can be sure that there is a coin?
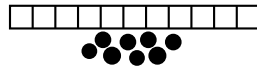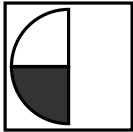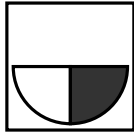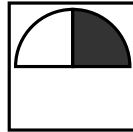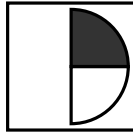
(**A**) 1      (**B**) 3      (**C**) 4      (**D**) 5      (**E**) 6

5 puntos

**17.** Having turned a card over around its right side, we see what is drawn in the figure. What shall we see if we turn this card over around its upper side?



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

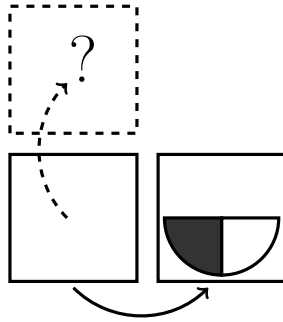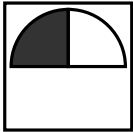**18.** Tim, Tom and Jim are triplets (three brothers born on the same day). Their brother Paul is exactly 3 years older. Which of the following numbers can be the sum of the ages of the four brothers?

(**A**) 25      (**B**) 27      (**C**) 29      (**D**) 30      (**E**) 60

**19.** Magic trees grow in a magic garden. Each tree contains either 6 pears and 3 apples or 8 pears and 4 apples. There are 25 apples in the garden. How many pears are there in the garden?
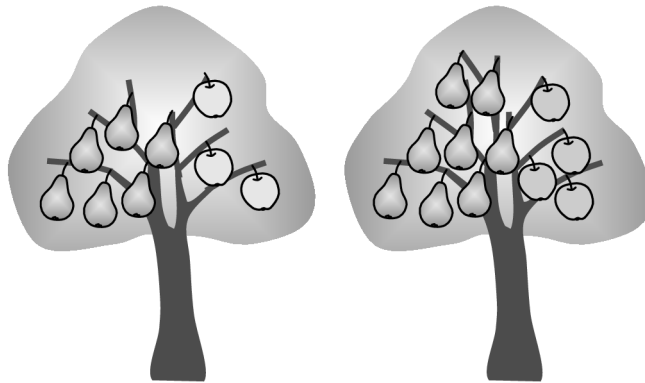


(**A**) 35      (**B**) 40      (**C**) 45      (**D**) 50      (**E**) 56

**20.** My dogs have 18 more legs than noses. How many dogs do I have?

(**A**) 4      (**B**) 5      (**C**) 6      (**D**) 8      (**E**) 9

**21.** Karin wants to place five bowls on a table in order of their weight. She has already placed Q, R, S and T in order. Bowl T weights the most. Where must she place bowl Z?

$$\underbrace{\triangle\ \triangle\ \square}_{\textbf{Q}} \qquad \underbrace{\bigcirc\bigcirc\square}_{\textbf{R}} \qquad \underbrace{\square\ \triangle\ \square}_{\textbf{S}} \qquad \underbrace{\square\bigcirc\square}_{\textbf{T}}$$

$$\underbrace{\triangle\bigcirc\square}_{\textbf{Z}}$$

(**A**) to the left of bowl Q  
(**B**) between bowl Q and bowl R  
(**C**) between bowl R and bowl S  
(**D**) between bowl S and bowl T  
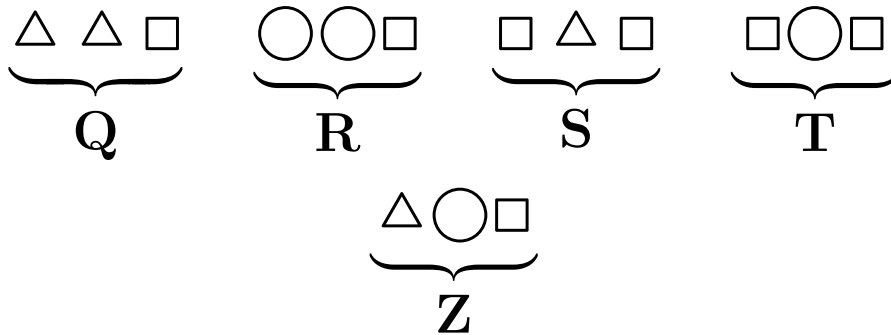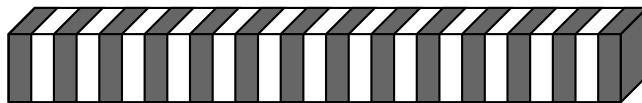(**E**) to the right of bowl T

**22.** Rachel adds seven numbers and gets 2016. One of the numbers in the addition is 201. She replaces the number 201 with 102. What answer does she get?

(**A**) 1815     (**B**) 1914     (**C**) 1917     (**D**) 2115     (**E**) 2118

**23.**

Malte has built a bar of 27 bricks. He breaks the bar into two bars such that one of them is twice the length of the other. Then he takes one of the new bars and breaks it the same way. He continues in this way. Which of the following bars will he not be able to get?

(**A**) 2        (**B**) 4        (**C**) 6

(**D**) 8        (**E**) 10

**24.** Five sparrows sit on a branch, as shown in the figure. Each sparrow chirps the same number of times as the number of sparrows it sees. For example, Angel chirps four times. Then, one sparrow turns to look in the opposite direction. Again, each of the sparrows chirps the same number of times as the number of sparrows it sees. This time, the total number of chirps is more than the first time. Which of the sparrows has turned to look in the opposite direction?

Angel     Bertha     Charlie     David     Eglio
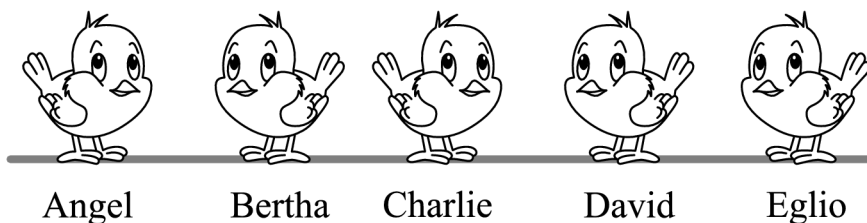
(**A**) Angel     (**B**) Bertha     (**C**) Charlie     (**D**) David     (**E**) Eglio

# Answers

Costa Rica

Name:

Institution:                                    Grade:

| | | | | | |
|---|---|---|---|---|---|
| 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 |
| 24. | A | B | C | D | E |