Lietuvos Respublikos švietimo ir mokslo ministerija
Kengūros konkurso organizavimo komitetas

Vilniaus universitetas
Lietuvos matematikų draugija

KANGAROO 2022

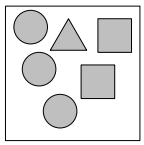
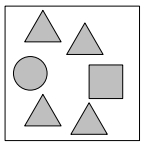
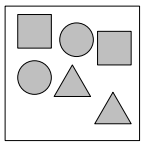
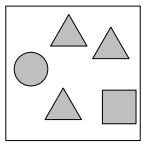
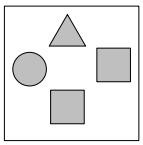
N
EN

Time allowed: 50 minutes
Calculators are not permitted

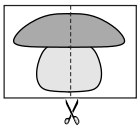
Nipper
1–2 grades

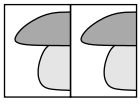
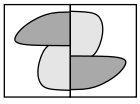
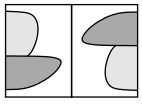
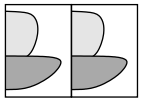
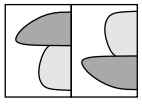
Questions for 3 points

1. Which box contains the most triangles?

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

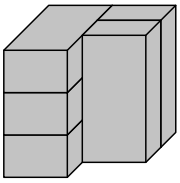
2. Arek cuts this picture in half and puts the two pieces together. Which option shows the two pieces of Arek's picture?



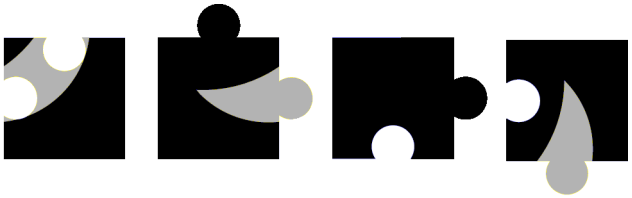
A)  **B)**  **C)**  **D)**  **E)** 

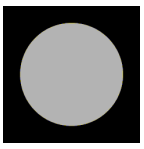
3. The picture shows 5 identical bricks. How many bricks are touching exactly 3 other bricks?

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



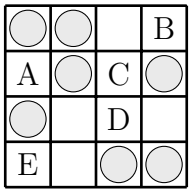
4. Peter puts the 4 puzzle pieces shown together to make a square. Which picture can he make?



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

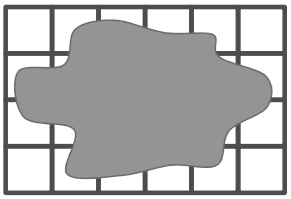
5. There has to be 2 coins in each row and each column. Where do you need to put the final coin?

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



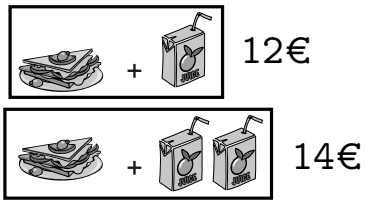
6. Some ink spilled on a piece of squared paper, as shown in the picture. How many of the squares have ink on them?

A) 16 **B)** 17 **C)** 18 **D)** 19 **E)** 20



Questions for 4 points

7. One sandwich and one juice together cost 12 euro. One sandwich and two juices together cost 14 euro. How much does one juice cost?



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

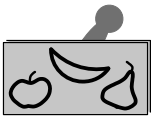
8. One animal sleeps in each of the baskets. The koala and the fox are sleeping in baskets with the same pattern and shape. The kangaroo and the ostrich have the same pattern on their baskets. Which basket is the puppy sleeping in?

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

9. 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?

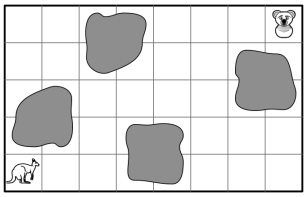
A) 34426 **B)** 34526 **C)** 34423 **D)** 34424 **E)** 32446

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



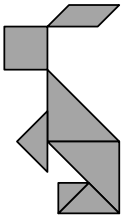
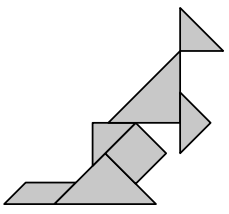
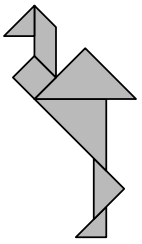
A)  **B)**  **C)**  **D)**  **E)** 

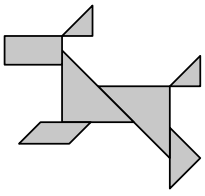
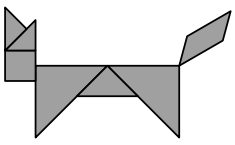
11. Kanga wants to reach the koala without going through any of the coloured squares. Which route could she take?



A) ⇒ ⇒ ⇑ ⇑ ⇒ ⇒ ⇒ ⇒ ⇑ ⇑ ⇒
B) ⇒ ⇒ ⇑ ⇑ ⇒ ⇒ ⇒ ⇒ ⇒ ⇑ ⇑ **C)** ⇒ ⇒ ⇑ ⇑ ⇒ ⇒ ⇒ ⇑ ⇒ ⇒ ⇑ **D)** ⇒ ⇒ ⇑ ⇑ ⇒ ⇒ ⇑ ⇑ ⇒ ⇒ ⇒ **E)** ⇒ ⇒ ⇑ ⇑ ⇑ ⇒ ⇒ ⇑ ⇒ ⇒ ⇒

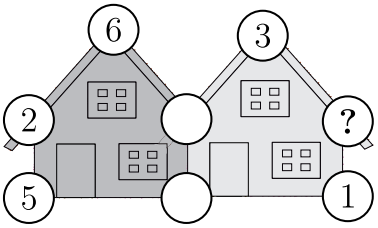
12. In one of the pictures below, a shape is used that cannot be seen in the others. In which picture is it?

A)  **B)**  **C)** 

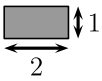
D)  **E)** 

Questions for 5 points

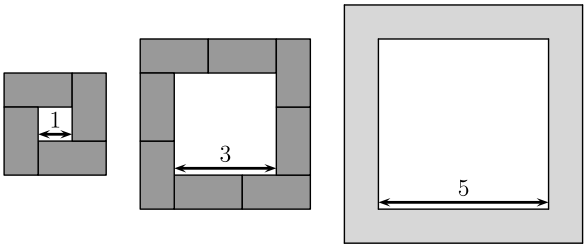
13. The sum of the five numbers in each house is 20. Some numbers have been painted over. What number is hidden under the question mark?



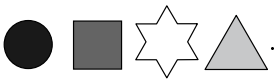
A) 3 **B)** 4 **C)** 7 **D)** 9 **E)** 14

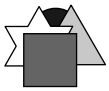
14. Katrin builds a path around each square using tiles like this one: 

. How many tiles does she use around a square with side 5?

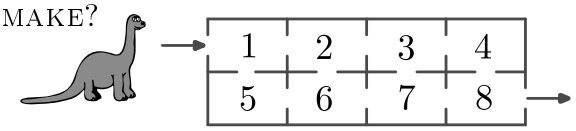


A) 10 **B)** 11 **C)** 12 **D)** 14 **E)** 16

15. Ann has 4 stickers  . She sticks down the star after she sticks down the square. She sticks down the star before she sticks down the triangle. Which picture could she end up with?

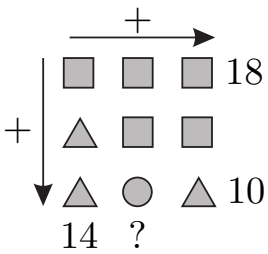
A)  **B)**  **C)**  **D)**  **E)** 

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

17. In the picture, each shape stands for a different number. Which number should be written in place of the question mark?



A) 10 **B)** 12 **C)** 14 **D)** 16 **E)** 18

18. There are five numbered cards on the table as shown. You may swap two cards at each step. What is the smallest number of steps needed to put the cards into increasing order?

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