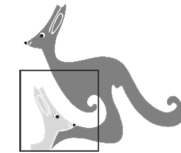


Starptautiskā konkursa „Kengurs” uzdevumi

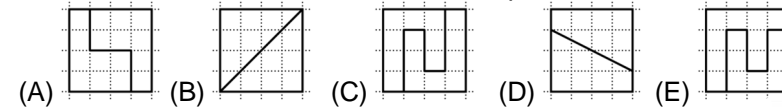


21.03.2024.

3.-4. klases

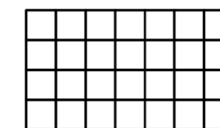
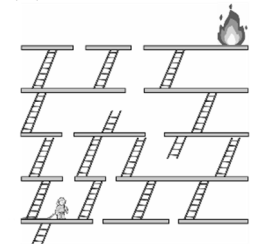
3 point problems

1. Which square is cut into 2 different shapes?



2. 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

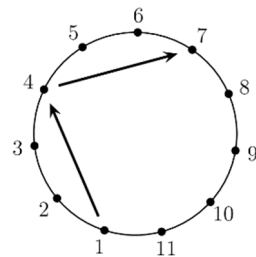


3. The table consists of 28 white cells as shown. Irina paints 2 rows and 1 column. A row is from left to right. A column is from top to bottom. How many cells will remain white?

(A) 8 (B) 10 (C) 12 (D) 14 (E) 17

4. Soccer players numbered 1 to 11 stand in a circle. Each player kicks the ball to the third player on their left, as shown. Player 1 starts. This 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



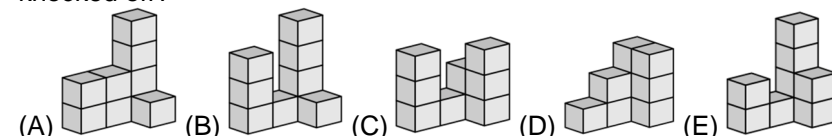
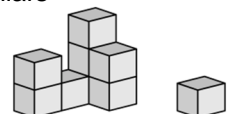
5. Mark wrote 3 four-digit numbers in order, one after the other. His sister erased some digits, as shown. What are the missing digits in the first, second and third numbers?

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

6. Anna pays 7 dollars for 3 items. The cost of each item is different and is whole number. How much is the most expensive item?

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

7. A cat knocks off 1 block from Felix's construction. What could this construction have looked like before the block was knocked off?



19. There are 60 pupils on a trip. When they line up, the colours of their reflective vests follow the pattern: yellow, green, yellow, green, 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

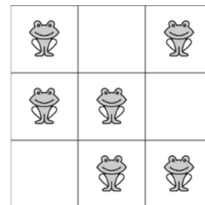
20. In the following calculations, the same digits are hidden under the same figures. Different digits are hidden under different figures.

What is the value of $\triangle \times \bullet \times \square$?

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

21. There are exactly 2 frogs in each row and each column. The frogs decide that 2 of them will jump to a neighbouring empty cell at the same time. Neighbouring cells have a side in common. After that, there still are exactly 2 frogs in each row and in each column. In how many ways can the frogs do this?

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





22. The figure 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. George, David and Mary are friends. Neither two of them have the same age. On the question "Who is the oldest?", they gave the following answers. George: "I am not the oldest". David: "I am the oldest". Mary: "I am not the youngest". It turns out that only one of these three answers is true. Sort friends by ascending age.

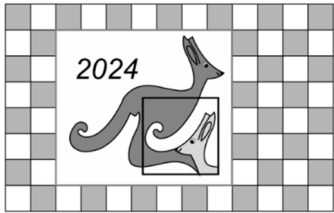
(A) David, Mary, George
(B) George, David, Mary
(C) Mary, David, George
(D) David, George, Mary
(E) it is impossible to determine

24. There are 2 types of blocks: white  and gray . A small cube can be made of 4 white blocks or of 1 white and 1 gray 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

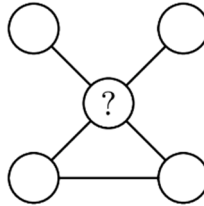


Laiks uzdevumu risināšanai – 75 minūtes!



8. Alex has a Kangaroo 2024 poster on the kitchen wall. How many grey tiles are there behind the poster?
(A) 15 (B) 21 (C) 25 (D) 30 (E) 35

4 point problems



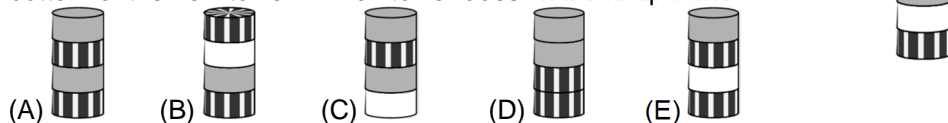
9. Liz wants to fill in the circles using the numbers 1, 2, 4, 5 and 6, one in each circle and without repeating any number, so that all the numbers that are lined up add up to 11. Which number should go in the circle with a question mark?

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

10. There are five different kinds of fruit in a bowl: . Ann likes . Ben likes . Sam likes . Dan likes . Eli likes . Everyone gets the fruit they like. Everyone gets a different kind of fruit. What does Eli get?

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

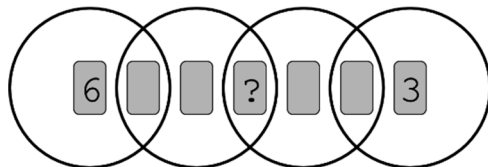
11. Ada has built a tower of 8 discs, as in the picture. Ada removes the second disc from the bottom of this tower. Then she removes the third disc from the bottom of the new tower. Then she removes the fourth disc from the bottom of the new tower. Then she removes the fifth disc from the bottom of the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



12. Peter the penguin goes fishing every day and brings back 9 fish for his 2 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 of the chicks has eaten 26 fish. How many fish has the other chick eaten?
(A) 19 (B) 22 (C) 25 (D) 28 (E) 31



13. 7 cards with numbers 1 to 7 are placed in four overlapping wire rings, as shown. The sum of the numbers on the cards in each ring is 10.



- Only two cards are placed so that the numbers are visible. Which number is under the question mark?

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

14. 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?

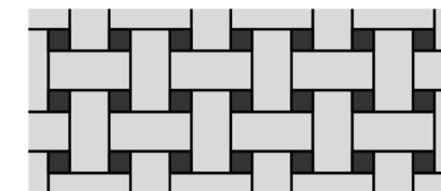
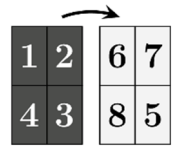
(A) 3 (B) 4 (C) 5 (D) 6 (E) 7



15. Rem writes the numbers 1 to 4 on a sheet. Then he flips the sheet and writes the numbers 5 to 8, as shown. After that, he cuts the sheet into 4

rectangular cards and puts them in a row: . What is the sum of the numbers represented by the question marks?

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



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

16. A floor is covered with 2 kinds of tile: rectangular and square . The picture shows a part of the floor. The length of the larger side of the rectangular tile is 23 cm, and the smaller side is 11 cm. What is the side-length of the square tiles?

5 point problems



17. A student has 3 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

18. Lucy weighs the blocks, choosing two at a time, as shown. How much do the 3 different blocks weigh together?

