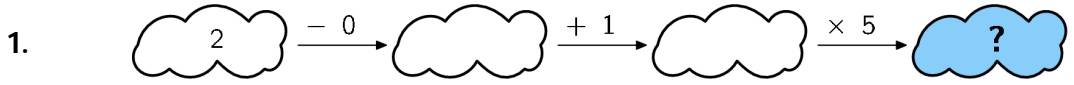
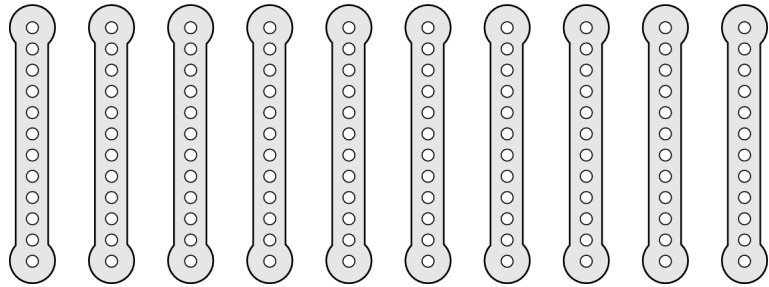


3 point problems

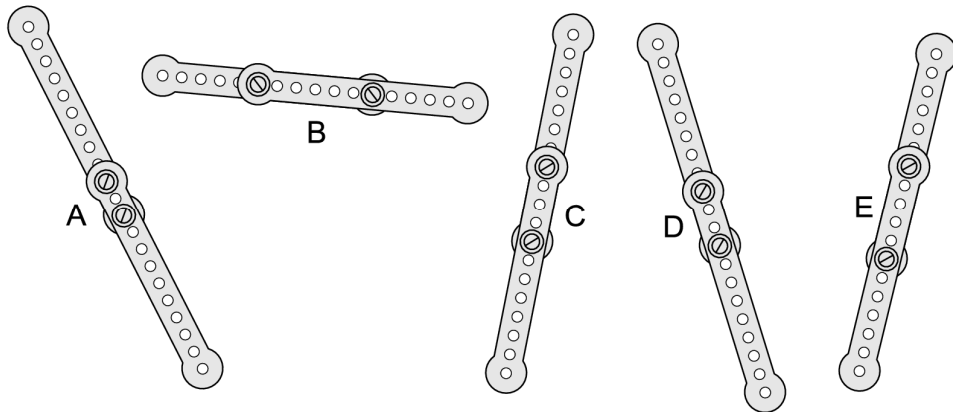


- (A) 6 (B) 7 (C) 8 (D) 10 (E) 15

2. Eric had 10 equal metal strips.



He has screwed pairs of them together into five long strips.



Which strip is the longest?

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

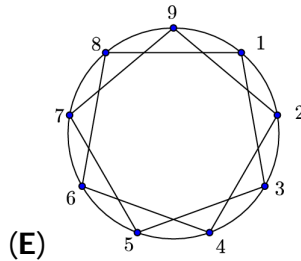
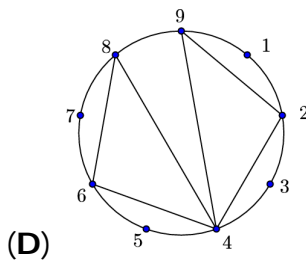
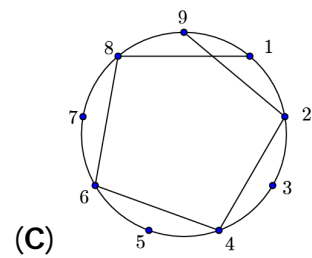
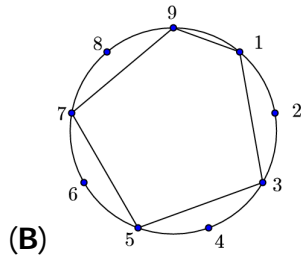
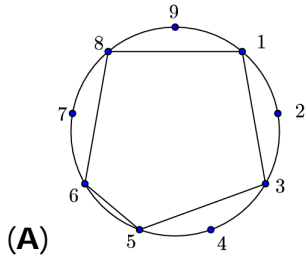
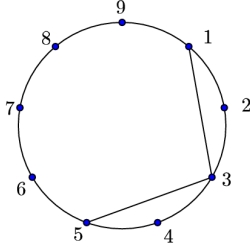
3. Which number is hidden behind the square?

$$\triangle + 4 = 7$$

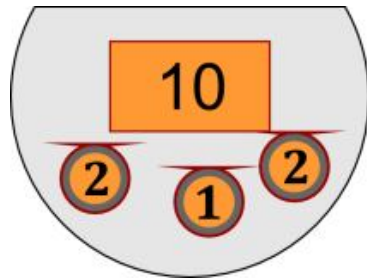
$$\square + \triangle = 9$$

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

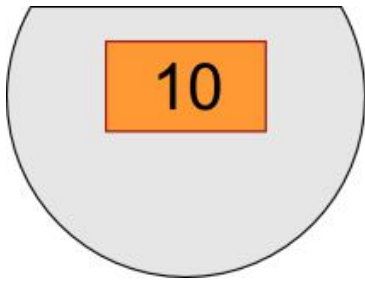
4. We start drawing a line at every second dot on the circle until we are back at the number 1. The first two lines are drawn already. What figure do we get?



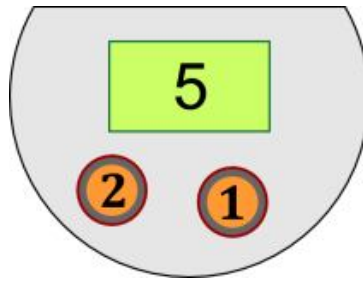
5. Lucy had some kangas in her wallet (see the picture). She went to a shop where she bought a ball and paid 7 kangas.



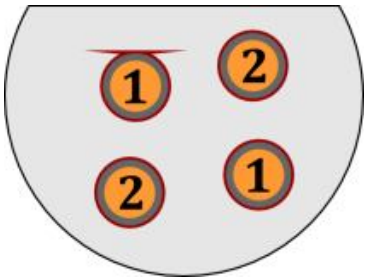
How many kangas did she have when she left the shop?



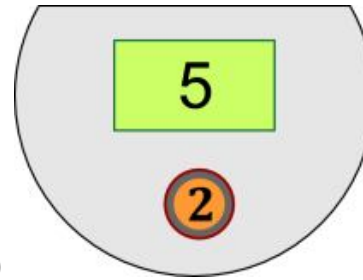
(A)



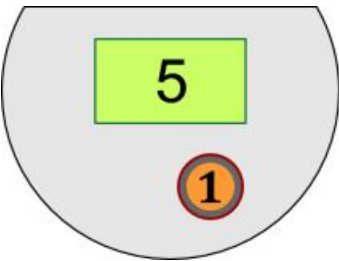
(B)



(C)



(D)



(E)

6. A whole number has two digits. The product of the digits of this number is 15. The sum of the digits of this number is:

(A) 2

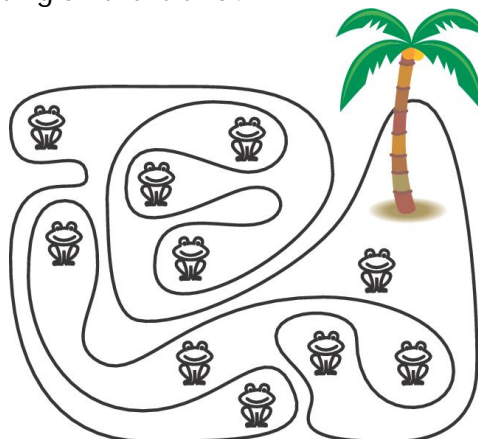
(B) 4

(C) 6

(D) 7

(E) 8

7. In the figure, we see an island with a highly indented coastline and several frogs. How many of these frogs are sitting on the island?



(A) 5

(B) 6

(C) 7

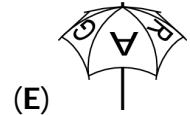
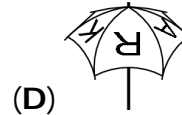
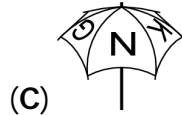
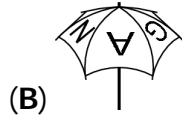
(D) 8

(E) 9

8. My umbrella has KANGAROO written on top. It is shown in the picture on the right.



Which of the following pictures also shows my umbrella?



4 point problems

9. Basil wants to cut the shape depicted in Figure 1 into identical triangles as in Figure 2. How many triangles will he get?

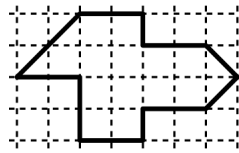


Figure 1



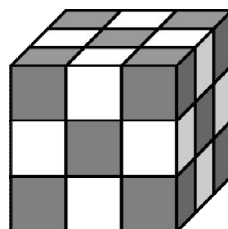
Figure 2

- (A) 8 (B) 12 (C) 14 (D) 15 (E) 16

10. Luis has 7 apples and 2 bananas. He gives 2 apples to Yuri who, in return gives bananas to Luis. Then Luis has as many apples as bananas. How many bananas did Yuri give to Luis?

- (A) 2 (B) 3 (C) 4 (D) 5 (E) 7

11. Jack built a cube using 27 small cubes which are colored either black or white (see figure). No two of the small cubes which are colored in the same color have a common face. How many white cubes did Jack use?



- (A) 10 (B) 12 (C) 13 (D) 14 (E) 15

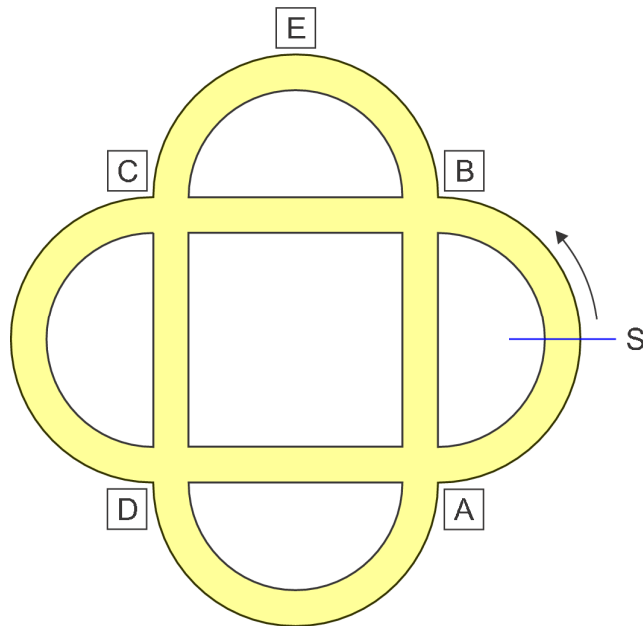
12. In a speed skating competition 10 racers reached the final. Tom overtook 3 racers more than overtook him. Which place did Tom end up in?

- (A) 1 (B) 3 (C) 4 (D) 6 (E) 7

13. Josip has 4 toys - a car, a doll, a ball and a ship. He wants to put them on a line on a shelf. The ship has to be next to the car and the doll has to be next to the car. In how many ways can he arrange them so that all the conditions are fulfilled?

- (A) 2 (B) 4 (C) 5 (D) 6 (E) 8

14. Pete rides a bicycle in the park as in the figure. He starts from the point S in the direction of the arrow. At the first crossroad he turns right, then at the next crossroad he turns left, then right again, then left again and so on in that order. What is the sign at which he won't pass?



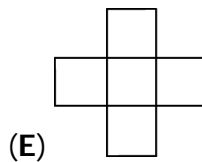
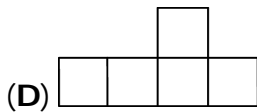
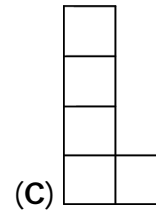
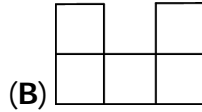
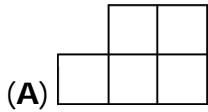
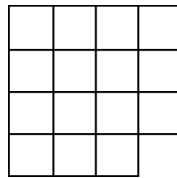
- (A) A (B) B (C) C (D) D (E) E

15. There are 5 ladybugs (see fig.). Two ladybugs are friends with each other if the numbers of spots that they have differ exactly by 1. On Kangaroo Day each of the ladybugs sent to each of her friends one SMS greeting. How many SMS greetings were sent?



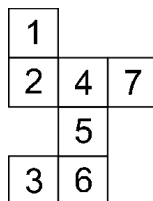
- (A) 2 (B) 4 (C) 6 (D) 8 (E) 9

16. The figure is divided into three identical pieces. What did the pieces look like?



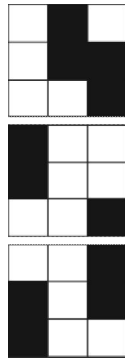
5 point problems

17. Luisa wants to fold a cube from a paper net. By mistake she drew 7 squares on her sheet instead of 6 squares. Which square must she remove so that the figure remains connected and Luisa can fold a cube from it?



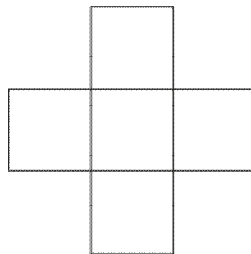
- (A) 1 (B) 2 (C) 3 (D) 6 (E) 7

18. We have three transparent sheets with the following patterns. We can only rotate the three sheets without turning over. Then we put them exactly on top of each other.

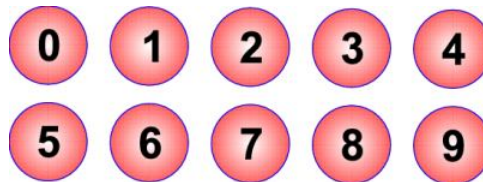


What is the maximum possible number of black squares seen in the obtained square if looked at from above?

- (A) 5 (B) 6 (C) 7 (D) 8 (E) 9
19. The numbers 2, 3, 5, 6 and 7 are written in the squares of the cross (see fig.) so that the sum of the numbers in the row is equal to the sum of the numbers in the column. Which of the numbers can be written in the center square of the cross?

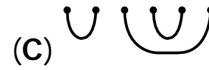
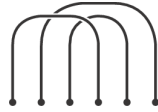


- (A) only 3 (B) only 5 (C) only 7
 (D) 5 or 7 (E) 3, 5 or 7
20. Peter has ten balls, numbered from 0 to 9. He distributed these balls among three friends: John got three balls, George four and Ann three. Then he asked each of his friends to multiply the numbers on the balls they got and the results were: 0 for John, 72 for George and 90 for Ann. What is the sum of the numbers on the balls that John received?

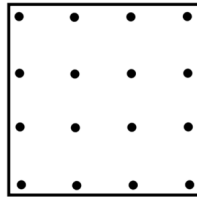


- (A) 11 (B) 12 (C) 13 (D) 14 (E) 15

21. Three ropes are laid down on the floor as shown. You can make one big, complete loop with three other pieces of rope. Which of the ropes shown will give you one big loop?

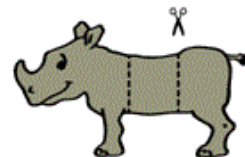
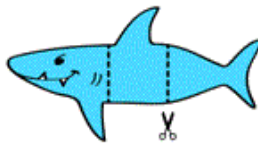
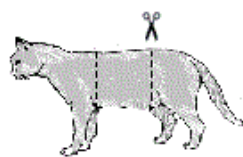


22. The figure shows a dotted sheet. Both horizontally and vertically the distance from one point to the next is equal.



Let four points at the time become vertices in different squares. How many squares with different area is it possible to make?

- (A) 2 (B) 3 (C) 4 (D) 5 (E) 6
23. Tom draws a shark, a cat and a rhino and cuts them in three pieces each as shown. Then he can make different animals by combining one head, one middle part and one bottom. How many different fantasy and real animals can Tom create?



- (A) 3 (B) 9 (C) 15 (D) 27 (E) 30
24. Anna, Berta, Charlie, David and Elisa were baking cookies during the weekend. Over the whole weekend Anna made 24 cookies, Berta 25, Charlie 26, David 27 and Elisa 28. After the whole weekend one of them had twice as many cookies as after Saturday, one 3 times, one 4 times, one 5 times and one 6 times as many. Who baked the most cookies on Saturday?
- (A) Anna (B) Berta (C) Charlie (D) David (E) Elisa