



wereldwijde  
wiskundewedstrijd  
**W4Kangoeroe**

[www.w4kangoeroe.nl](http://www.w4kangoeroe.nl)

March 19th  
2015

Good luck and most of  
all have fun.

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calculators are not  
allowed



you may use  
50 minutes



Only a pencil, an  
eraser and scribbling  
paper are allowed



results and prizes will  
arrive at school in May



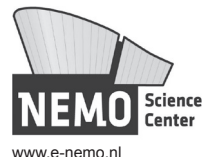
answers will be posted  
on the website March  
28th



solutions will be  
posted on the website  
April 19th

wizKID  
groep 5 & 6 primary school

zwijzen

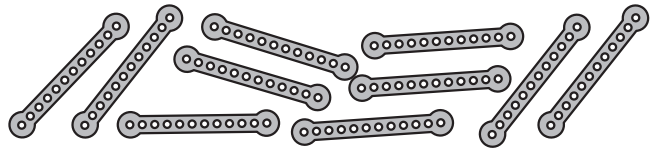


1. Which number is replaced by a question mark?

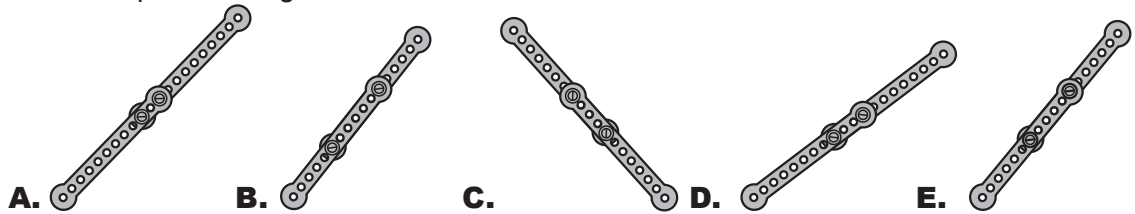


- A.** 6                      **B.** 7                      **C.** 8                      **D.** 10                      **E.** 15

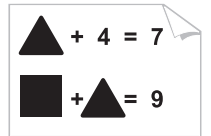
2. Sophie had 10 metal strips.



She has screwed pairs of them together and got 5 long strips.  
Which strip is the longest one?

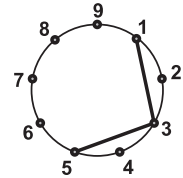


3. Which number is hidden by the square?

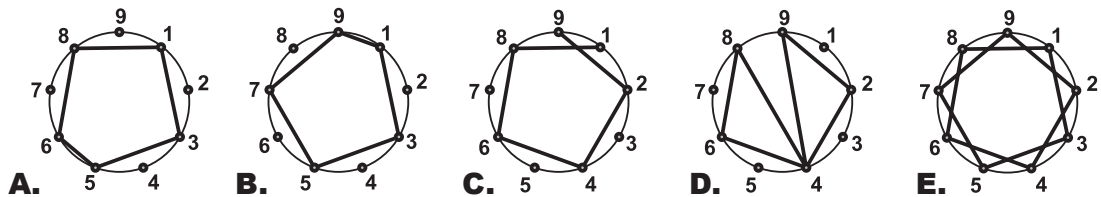


- A.** 2                      **B.** 3                      **C.** 4                      **D.** 5                      **E.** 6

4. We draw a line starting at 1 and then to every second dot, until we are back at 1.  
The first 2 lines are drawn already.



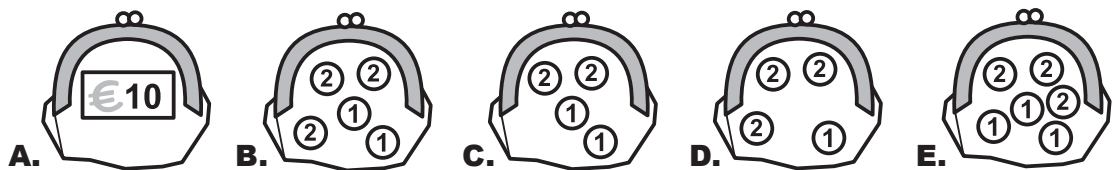
What figure do we get?



5. Astrid has some money in her purse (see figure).  
She goes to a shop and buys a ball for 7 euros.



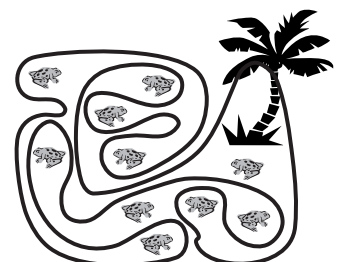
How much money is left in her purse after this?



6. Mike has 2 digits. When he multiplies the digits, he gets 15.  
What number does he get when he adds the digits?

- A.** 2                      **B.** 4                      **C.** 6                      **D.** 7                      **E.** 8

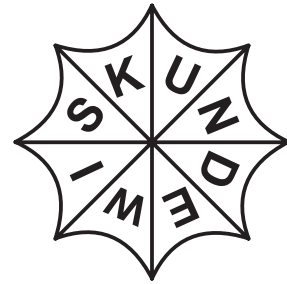
7. The tree is on an island with a weird shape.  
There are frogs in the water and frogs on the island.



How many frogs are on the island?

- A.** 5                      **B.** 6                      **C.** 7                      **D.** 8                      **E.** 9

8. My umbrella has the word WISKUNDE written on top.



Which of the following pictures shows my umbrella?

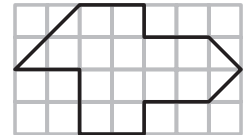


9. *Rafael* has triangles like the one in Figure 1. He wants to fill the drawing in Figure 2 with these triangles.

Figure 1



Figure 2

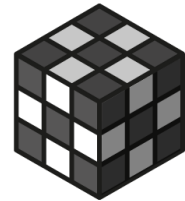


How many triangles does *Raphael* need?

- A. 8                      B. 12                      C. 14                      D. 15                      E. 16
10. *Lois* has 7 apples and 2 bananas. She gives 2 apples to *Yuri*, and *Yuri* gives some bananas to *Lois*. Then *Lois* has as many apples as bananas. How many bananas did *Yuri* give to *Lois*?

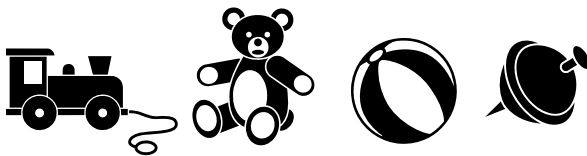
- A. 2                      B. 3                      C. 4                      D. 5                      E. 7

11. *Aline* has black and white small blocks. She builds a big block with 27 of them. (see picture) Small blocks next to each other do not have the same colour.



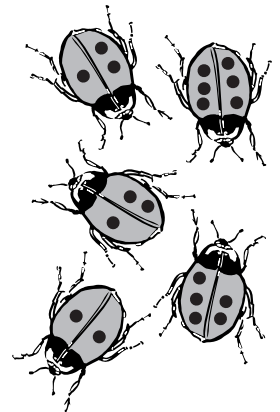
How many white small blocks did *Aline* use?

- A. 9                      B. 11                      C. 13                      D. 15                      E. 17
12. *Sam* has 4 toys – a train, a bear, a ball and a top.



He wants to line them up on a shelf. Both the top and the bear should be next to the train. In how many different ways can *Sam* arrange his toys then?

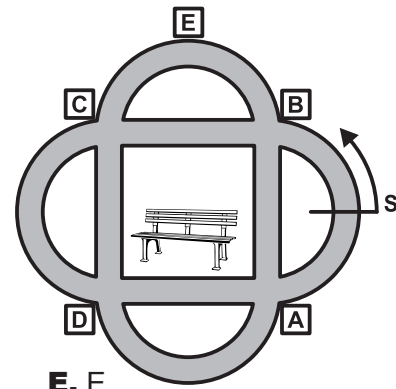
- A. 2                      B. 4                      C. 5                      D. 6                      E. 8
13. There are 5 ladybirds. 2 ladybirds are friends with each other if the numbers of spots that they have differ exactly by 1. On Kangaroo Contest Day friends send each other a text message.



How many text messages will be sent in all?

- A. 2                      B. 4                      C. 6                      D. 8                      E. 9

- 14.** Pete rides his bicycle through the park as in the figure. He starts at point S in the direction of the arrow. At the first crossing he turns right. At the second crossing he turns left. At the next he turns right, then left again, and so on, right and left in that order.

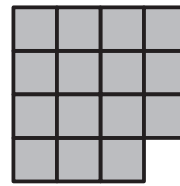


Which sign will he never pass by?

- A.** A      **B.** B      **C.** C      **D.** D      **E.** E
- 
- 15.** 10 runners in a footrace reached the finish line. Tom left 3 more runners behind him than finished before him. Which place did Tom end up in?

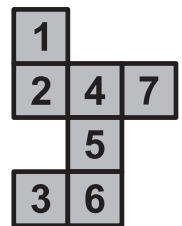
- A.** 1      **B.** 3      **C.** 4      **D.** 6      **E.** 7

- 16.** The figure is divided into 3 similar pieces. What do these pieces look like?



- A.**      **B.**      **C.**      **D.**      **E.**

- 17.** Sandra wants to fold a cube out of a paper net. By accident, she draws 7 squares on her sheet instead of 6.



Which square should she remove so that the figure remains connected and so that she can fold a cube from it?

- A.** 1      **B.** 2      **C.** 3      **D.** 6      **E.** 7
- 
- 18.** On the table there are 3 transparent sheets with the following patterns.

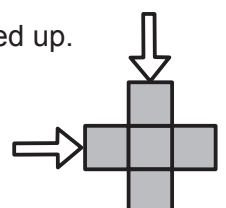


We may only rotate the sheets without turning them over. We slide them exactly on top of each other.

What is the maximum number of black squares, when viewed from above, that we can obtain this way?

- A.** 5      **B.** 6      **C.** 7      **D.** 8      **E.** 9

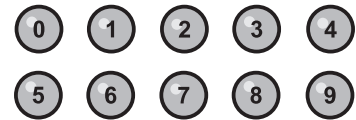
- 19.** The numbers 2, 3, 5, 6 and 7 are written in the squares of the cross. The numbers in the row indicated by the arrow pointing to the right are added up. The numbers in the column indicated by the arrow pointing downward are also added up. The outcomes are the same.



Which possibilities are there for the number in the central square?

- A.** only 3      **B.** only 5      **C.** only 7      **D.** 5 or 7      **E.** 3, 5 or 7

20. Peter has 10 balls, numbered from 0 to 9.

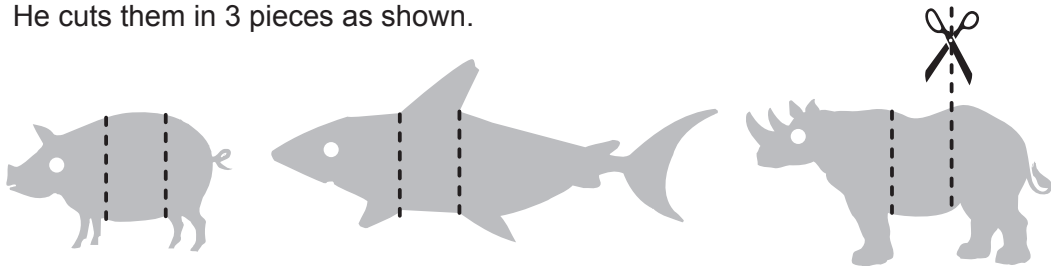


He distributes these balls among 3 friends: *John* got 3 balls, *George* 4 and *Anne* 3. He asks his friends to multiply the numbers on the balls that were given to them. The result for *John* was 0, *George* got 72, and *Anne* 90.

What is the sum of the numbers on the balls that *John* received?

- A. 11                      B. 12                      C. 13                      D. 14                      E. 15

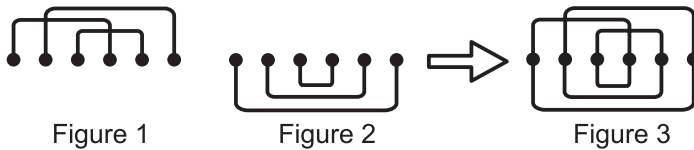
21. Tom has drawn a pig, a shark and a rhino. He cuts them in 3 pieces as shown.



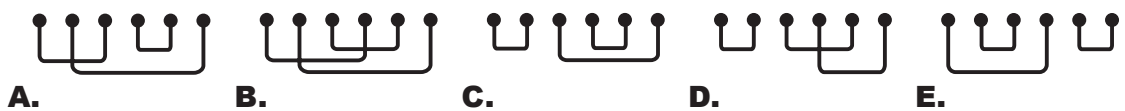
Now he can combine one head, one middle part and one back end into various animals. How many different real or fantasy animals can Tom create this way?

- A. 3                          B. 9                          C. 15                          D. 27                          E. 30

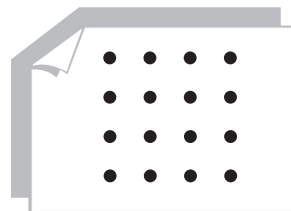
22. 3 ropes were put on the floor, as shown in Figure 1. You can combine this with 3 pieces of rope shown in Figure 2, and obtain one big loop as in Figure 3.



Which of the following pieces of rope combine with Figure 1 to form one big single loop as well?



23. The figure shows a dotted sheet.



By connecting 4 points you can obtain a square in different ways, small or big, straight up or tilted.

How many squares of different areas can be made this way?

- A. 2                          B. 3                          C. 4                          D. 5                          E. 6

24. *Angela, Bernadette, Chantal, Daniëlle en Eveline* have been baking cookies on Tuesday and on Wednesday. In all, *Angela* has baked 24 cookies, *Bernadette* 25, *Chantal* 26, *Daniëlle* 27 and *Eveline* 28. After Wednesday, one of them had 2 times as many cookies as after Tuesday, one had 3 times as many, one 4 times, one 5 times, and one 6 times as many. Who baked the most cookies on Tuesday?

- A. *Angela*                      B. *Bernadette*                      C. *Chantal*                      D. *Daniëlle*                      E. *Eveline*