

wereldwijde wiskundewedstrijd

W4Kangoeroe

THURSDAY MARCH 15TH
2018



WWW.W4KANGOEROE.NL

Good luck and most of
all have fun.



Breng leren tot leven
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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 at
the end of May



answers will be posted
on the website about
March 25th



solutions will be
posted on the website
about April 16th

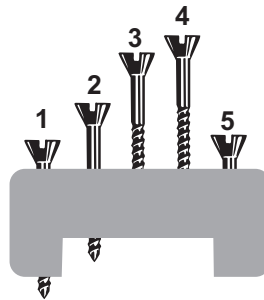
1. When an arrow hits a balloon, the balloon bursts.
The arrow flies on.



How many balloons will burst?

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

2. 4 screws have the same length.



1 screw is shorter.

Which screw is shortest?

- A. 1 B. 2 C. 3 D. 4 E. 5

3. *Leonie* has 10 stamps.
Each stamp has one digit: 0, 1, 2, 3, 4, 5, 6, 7, 8 or 9.
She stamps the date of the Kangaroo Contest.



How many different stamps did *Leonie* use?

- A. 5 B. 6 C. 7 D. 9 E. 10

4. *Suzanne* is 6 years old.
Her brother is 1 year older.
Her sister is 1 year younger.

How old are the 3 children altogether?

- A. 10 B. 15 C. 18 D. 21 E. 30

5. This is a picture of *Mo*.
Mo turns around.



Which picture is **not** of *Mo*?

- A. B. C. D. E.

6. *Lucy* folds a sheet of paper in two.

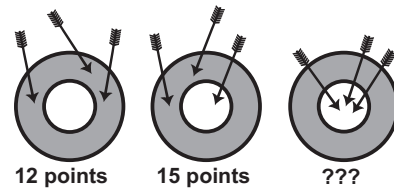


Then she cuts out a piece of the paper.

What does she see when she unfolds the paper?

- A. B. C. D. E.

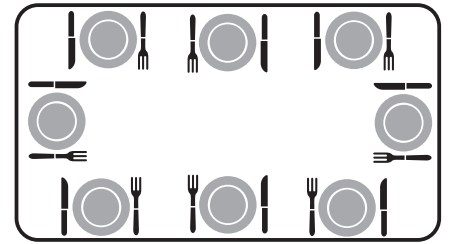
7. First *Diana* scores 12 points with 3 arrows.
The second time she scores 15 points.



How many points did she score the third time?

- A. 18 B. 19 C. 20 D. 21 E. 22

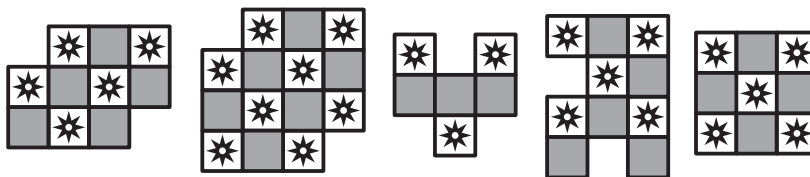
8. *Sjoerd* is laying the table for 8 people.
He has to place the cutlery correctly.
Knife and fork are placed correctly for an eater if the fork is to the left and the knife is to the right of the plate.



For how many eaters did *Sjoerd* lay the table correctly?

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

9. *Aysha* makes figures with this tile:

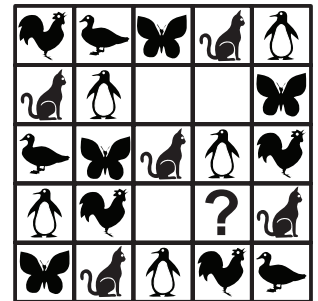


How many of the 5 figures, that can be seen above, can *Aysha* lay?

- A. 1 B. 2 C. 3 D. 4 E. 5

10. *John* is filling the boxes with these 5 animals:

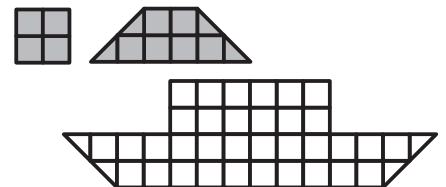
Each animal appears once in each row
(next to each other and below each other)



Which animal does *John* put in the box with the question mark?

- A. B. C. D. E.

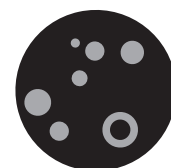
11. *Anna* cuts 2 types of pieces out of a sheet of paper.



What is the least number of pieces *Anna* will need to cover the boat completely?

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

12. Interchange the colours black and grey.
Then turn the drawing around



What does the new drawing look like?

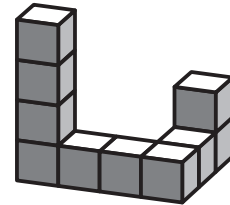
- A. B. C. D. E.

- 13.** *Petra* the rabbit has 20 carrots.
She eats 2 carrots every day. She eats the twelfth carrot on Wednesday.

On which day did she eat the first carrot?

- A.** Monday **B.** Tuesday **C.** Wednesday **D.** Thursday **E.** Friday

- 14.** *Tessa* makes the building we have drawn here.
She glues the 10 blocks together.
She paints the building, the bottom side too.



Of how many blocks did *Tessa* paint exactly 4 faces?

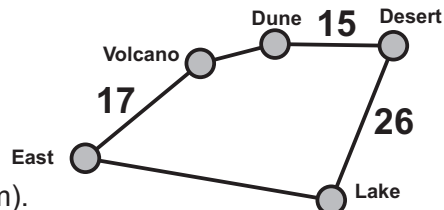
- A.** 6 **B.** 7 **C.** 8 **D.** 9 **E.** 10

- 15.** There are 8 flowers in the garden .
Butterflies and bees sit on the flowers.
On one flower sits at most 1 animal.
On more than half of the flowers sits an animal.
The number of butterflies is twice the number of bees.

How many butterflies sit on the flowers?

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

- 16.** Captain *Cook* sails from the island East along every island back to the island East (see map).

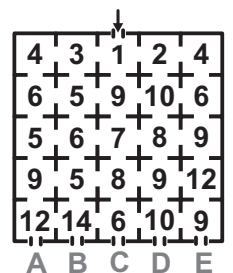


The total journey is 100 kilometers (km).
The distance between Desert and Lake is the same as between East and Dune via Volcano.

What is it the distance from East to Lake?

- A.** 17 km **B.** 23 km **C.** 26 km **D.** 33 km **E.** 35 km

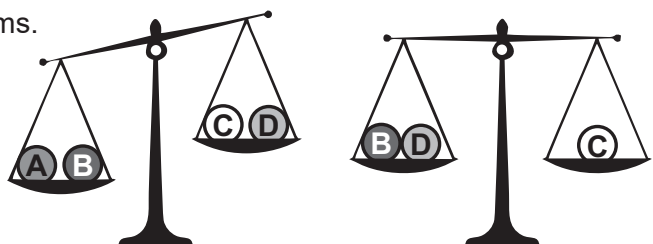
- 17.** The rooms in the house are numbered.
Kangaroo enters at the arrow.
He goes through some rooms and then leaves the house.
Kangaroo can only go to the next room if the number of that room is higher.



Through which exit does *Kangaroo* leave the house?

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

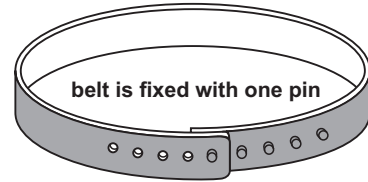
- 18.** 4 balls weigh 10, 20, 30 and 40 grams.



Which ball weighs 30 grams?

- A.** A **B.** B **C.** C **D.** D **E.** could be A or B

19. You can fasten the belt in the drawing in 5 different ways with 1 or more pins (see figure). The distance between 2 pins is 2 cm.



Marjanne fastens the belt with 1 pin. Kees fastens the belt with 5 pins.

How many cm is Marjanne's belt longer than Kees's belt when the belts are fastened?

- A. 5 B. 8 C. 10 D. 16 E. 20

20. In some old language the symbols represent the numbers 1,2,3,4 and 5.

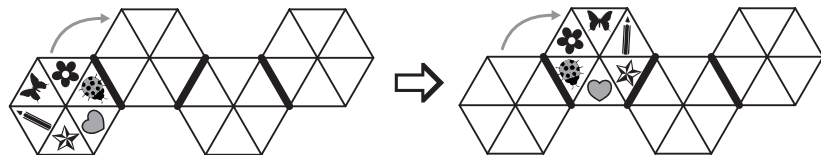
Nobody knew, in earlier days, which symbol represented which number. But now we know that:

+ = + = + =

Which symbol represents the number 3?

- A. B. C. D. E.

21. Martin turns over the coloured glass plate again and again along the thick lines. In the figure you see the first turnover.

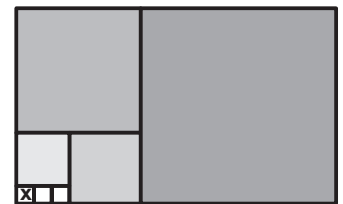


What is the position of the glass plate at the right hand side of the figure?

- A. B. C. D. E.

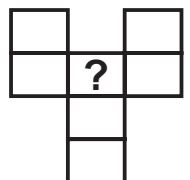
22. The figure alongside consists of a number of squares.

How many little squares (the same size as the one with an x) do you need to fill the complete figure?



- A. 165 B. 176 C. 187 D. 198 E. 200

23. Farisha wants to place the numbers 1 through 7 in the boxes. 2 consecutive numbers should not be in neighbouring boxes. Neighbouring boxes are boxes that share a side or a corner. For example: the numbers 2 and 3 cannot be neighbours.



Which numbers can Farisha put in the box with the question mark?

- A. each of the 7 numbers B. every odd number C. only the number 4
D. every even number E. only the number 1 or the number 7

24. Joris want to slay the dragon. He has to cut off all heads of the dragon. If he cuts off 3 heads, 1 new head appears immediately. Joris slays the dragon by cutting off 13 heads in total.

How many heads does the dragon have when Joris starts?

- A. 8 B. 9 C. 10 D. 11 E. 12