

WereldWijde WiskundeWedstrijd
W4Kangoeroe

THURSDAY
MARCH 18TH 2021

WWW.W4KANGOEROE.NL

Good luck and most of
all have fun.

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calculators are not allowed



only a pencil, an eraser and scribbling paper are allowed



answers will be posted on the website about March 29th



you may use 50 minutes

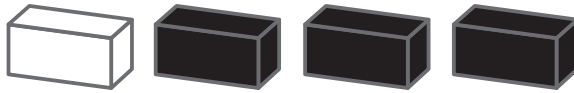


results and prizes will arrive at school at the end of May

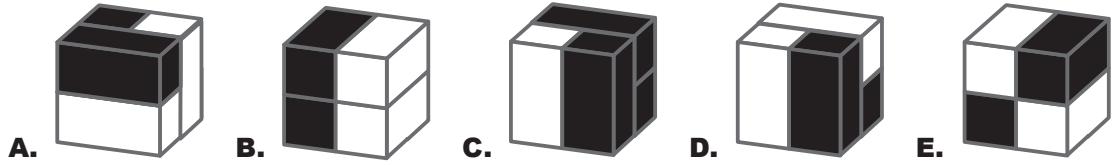


solutions will be posted on the website about April 20th

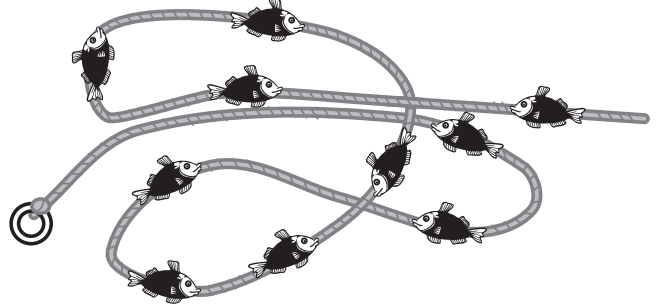
1. Erik has 4 bricks.



Which of the cubes shown below can he make with his 4 bricks?



2. Anja straightens the line.



How many fish will have their heads pointing towards the ring?

- A. 3 B. 5 C. 6 D. 7 E. 8

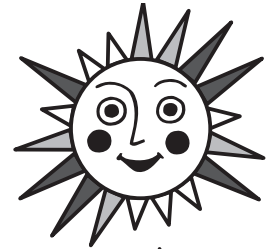
3. Sietske puts the 4 puzzle pieces together correctly.



What is the result of the calculation?

- A. 6 B. 15 C. 18 D. 24 E. 33

4. Alaya draws a picture of the sun.



Which of the following answers is part of her picture?



5. Nora plays with 3 cups on the kitchen table. She takes the left-hand one, flips it over, and puts it to the right of the other cups. That's the first time.

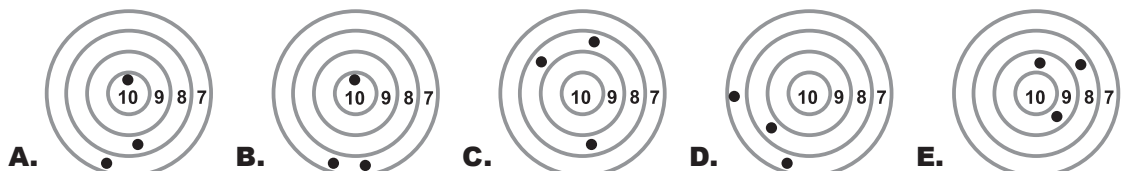


What do the cups look like after Nora does this 10 times?

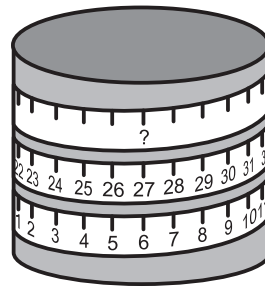


6. 5 children shoot with bow and arrow at a target. Ricky scored the most points.

What target is Ricky's?



7. A measuring tape is wrapped around a cylinder.



Which number should be at the place shown by the question mark?

- A. 33 B. 38 C. 48 D. 53 E. 69

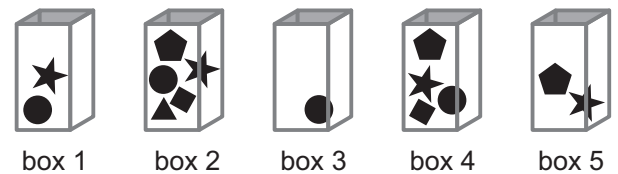
8. Nisa has 3 different sorts of cards in a game: apple , cherries and grapes .

These are divided into 5 sets: A, B, C, D and E.
In each set she wants to arrange all cards with the same fruit on next to each other.
She may choose 2 cards from the set and swap their places.

With which set is it **not** possible to get all cards with the same fruit on next to each other?

- A. B. C.
D. E.

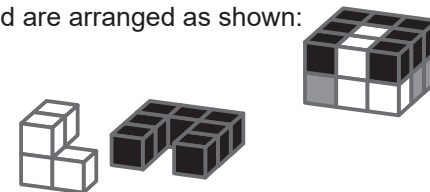
9. Sofie takes 5 different shapes from the boxes.
She can only pick 1 shape from each box.



Which shape must she pick from box 4?

- A. B. C. D. E.

10. 18 cubes are coloured white or grey or black and are arranged as shown:

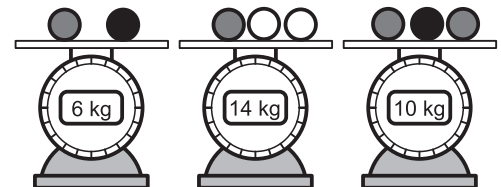


The white part and the black part look like this:

Which of the following parts is the grey part?

- A. B. C. D. E.

11. Rosanna has some balls of 3 different colours.
Balls of the same colour have the same weight.



What is the weight of the white ball?

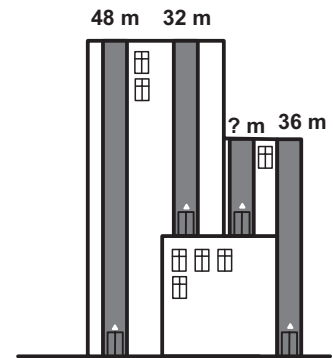
- A. 3 kg B. 4 kg C. 5 kg D. 6 kg E. 7 kg

12. Denise makes a silver and a golden cake.
She needs a total of 20 eggs for both cakes together.
She needs 6 more eggs for the golden cake than for the silver one.

How many eggs does Denise need for the golden cake?

- A. 7 B. 10 C. 12 D. 13 E. 14

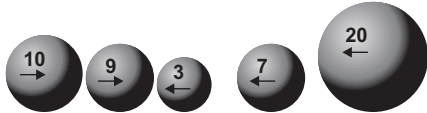
13. There are 4 elevators in a high building.
The heights of 3 elevators are shown at their tops.



What is the height of the elevator shown by the question mark?

- A. 12 m B. 14 m C. 16 m D. 20 m E. 22 m

- 14.



The 5 balls move simultaneously in the direction indicated by their arrows. When 2 balls in opposite directions collide, the bigger ball swallows the smaller one and increases its value by the value of the smaller ball. The bigger ball continues to move in its original direction, as shown in the example:

What is final result of the collisions of the balls?



- A. B. C. D. E.

15. The Koala eats leaves from 3 branches. Each branch has 20 leaves.
The Koala will eat a few leaves from the first branch.
Then the Koala will eat as many leaves from the second branch as there are left on the first branch.
Finally, he eats 2 leaves from the third branch.

How many leaves were left on the 3 branches in total?

- A. 20 B. 22 C. 28 D. 32 E. 38

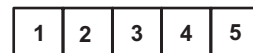
16. At the beginning of the day there is already some money in the drawer of an ice cream stand.
After selling 6 ice creams, there is 70 euros in the drawer.
After selling a total of 16 ice creams, there is 120 euros in the drawer.
All ice creams are equally expensive.

How many euros were there in the drawer at the beginning of the day?

- A. 20 B. 30 C. 40 D. 50 E. 60

17. Eva has 5 stickers:

She sticks 1 of them on each of the 5 squares of this board.



She sticks the not on square 5.

She sticks the on square 1.

The has the and as neighbors.

On which square does *Eva* stick the flower?

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

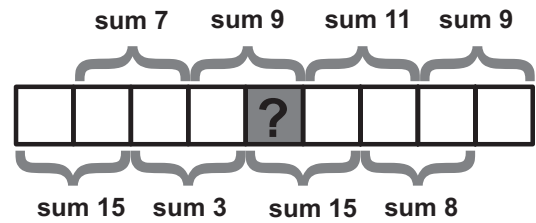
18. 7 cards are arranged as shown. Each card has 2 numbers, one of which is upside down.
The teacher wants to rearrange the cards so that the sum of the numbers in the top row is the same as the sum of the numbers on the bottom row.
He can do this by turning 1 of the cards upside down.

7	5	2	2	8	3	4
4	3	4	5	7	7	5
A	B	C	D	E	F	G

Which card must he turn upside down?

- A. card A B. card C C. card D D. card F E. card G

19. *Thijs* puts the numbers 1 to 9 in the squares.

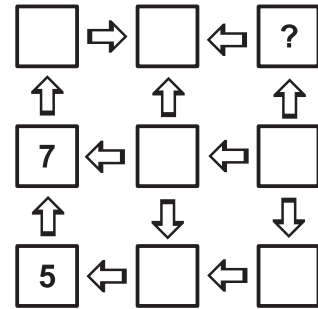


There is one number in each square.
The sums of each 2 neighbouring numbers are shown.

Which number is placed in the grey square?

- A. 4 B. 5 C. 6 D. 7 E. 8

20. *Elena* wants to write the numbers 1 to 9 in the squares.



The arrows point always from a smaller number to a larger one.
Elena has already written 5 and 7.

Which number should she write instead of the question mark?

- A. 2 B. 3 C. 4 D. 6 E. 8

21. *Mia* throws darts at balloons worth 3, 9, 13, 14 and 18 points.
She scores 30 points in total.



Which balloon does *Mia* definitely hit?

- A. 3 B. 9 C. 13 D. 14 E. 18

22.

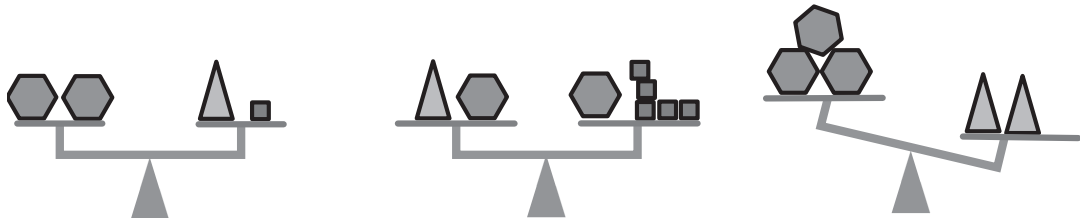


Each of the 5 boxes contains either apples or bananas, but not both.
The total weight of all the bananas is 3 times the weight of all the apples.

Which boxes contain apples?

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

23. 3 different types of objects (triangles, squares and hexagons) are placed on sets of scales.



What do you need to put on the left-hand side of the third set of scales to balance?

- A. 1 square B. 2 squares C. 1 hexagon D. 1 triangle E. 2 triangles

24. There are less than 50 cookies in a box. The cookies can be divided fairly between 2 or 3 or 4 children.
However, they cannot be divided fairly between 7 children because 6 more cookies would be needed.

How many cookies are there in the box?

- A. 12 B. 24 C. 30 D. 36 E. 48