# wizSMART 2010

## W4 KANGOEROE
## WereldWijde
## WiskundeWedstrijd

Good luck and most of all have fun.

## www.w4kangoeroe.nl

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calculator not allowed

you may use 50 minutes

scrap paper is allowed

results and awards at school mid-May
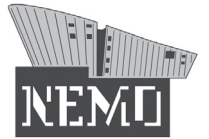
23th March the answers will be on the website

20th April the explanations will be on the website

wizSMART
7 & 8 primary school and 1 & 2 vmbo,
vmbo 3 & 4 basisberoepsgerichte leerweg

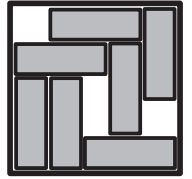**1.** Lisa is walking from home to school.
On her way she counts the number of flowers.
Which answer cannot be correct?

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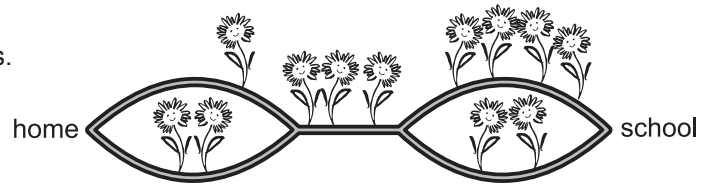
**A.** 6      **B.** 7      **C.** 8      **D.** 9      **E.** 10

**2.** There are seven blocks in a box.
By sliding the blocks you can make room for another block.
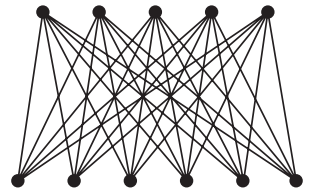How many blocks in the box do you have to slide at least?

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

**3.** 🦘 + 🦘 + 6 = 🦘 + 🦘 + 🦘 + 🦘

What is 🦘 ?

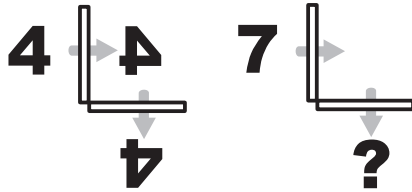**A.** 2          **B.** 3          **C.** 4          **D.** 5          **E.** 6

**4.** Tony has drawn lines from every point at the top to every point at the bottom.
How many lines did Tony draw?

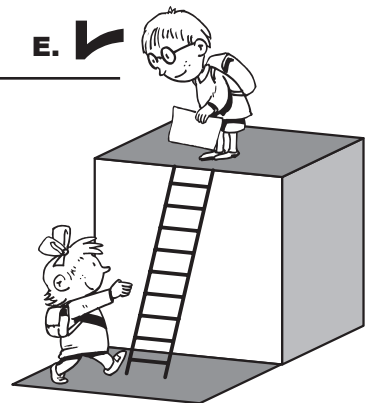**A.** 11          **B.** 25          **C.** 30          **D.** 36          **E.** 60

**5.** The digit 4 is reflected in two mirrors. The digit 7 is reflected the same way.

What should go in place of the question mark?

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

**6.** A ladder has nine steps.
Lisa climbs from the bottom up and Tony goes from the top down.
They meet at one step. For Lisa, it is the third step.
How many steps did Tony go?

**A.** 3          **B.** 4          **C.** 5          **D.** 6          **E.** 7

**7.** Flies have six legs and spiders have 8.
Tony is looking at 2 flies and 3 spiders.
Lisa is watching 10 birds and a few cats, Tony and Lisa count the same number of legs.
How many cats does Lisa see?

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

**8.** The height of the steps is 2 and the width is 5.
What is the perimeter of this figure?

5

2

**A.** 7x5 + 4x2          **B.** 7x5 + 8x2          **C.** 7x5 + 7x2          **D.** 8x5 + 8x2          **E.** 14x5 + 8x2

**9.** A square piece of paper is grey on top and white on the bottom side.
Tony has divided the paper in nine small squares.
After that he cut and folded along a few lines.
Which lines did Tony cut?
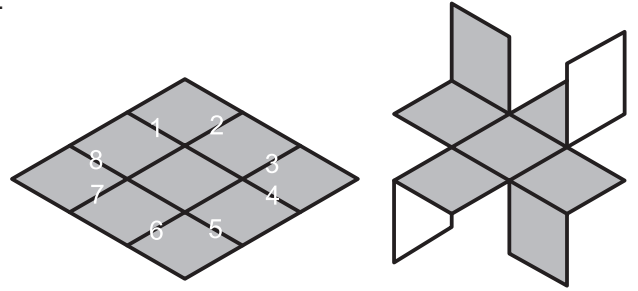
**A.** 1, 3, 5 and 7    **B.** 1, 4, 5 and 8    **C.** 2, 3, 5 and 6    **D.** 2, 4, 6 and 8    **E.** 3, 4, 6 and 7

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**10.** Which sum has the least outcome?

**A.** 2 x 0 + 1 x 0    **B.** 2 + 0 + 1 x 0    **C.** 2 x 0 + 1 + 0    **D.** 2 + 0 x 1 + 0    **E.** 2 + 0 x 1 x 0

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**11.** Lisa has taken a number in mind. She divided it by 3, and then added 3 to the outcome.
Finally, she multiplied the result by 3. She found 33.
What number did Lisa start with?

**A.** 4    **B.** 9    **C.** 14    **D.** 19    **E.** 24

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**12.** Tony has to write the numbers 1, 4, 7, 10 and 13 in the boxes.
He adds the three numbers that are horizontally adjacent.
He also adds the three numbers that are vertically adjacent.
The two results should be the same.
What is the largest result Tony could obtain?
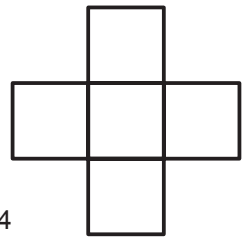
**A.** 18    **B.** 20    **C.** 21    **D.** 22    **E.** 24

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**13.** Lisa will turn a few white squares into black squares in the square alongside.
She would like to have precisely one white square left in every column and
in every row. [A row is from left to right; a column is from top to bottom.]
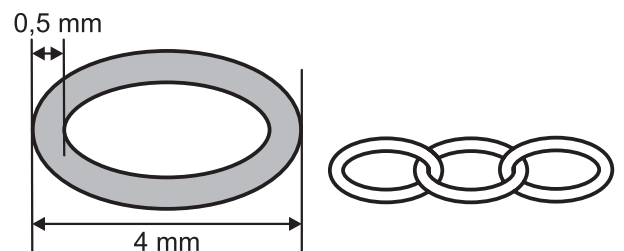How many white squares does Lisa have to turn into black squares?
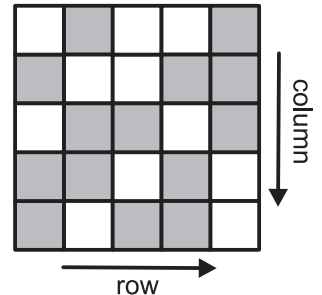
**A.** 4    **B.** 5    **C.** 6    **D.** 7
**E.** that is not possible

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**14.** Five rubber bands lie on the table.
Which rubber band has a knot?

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

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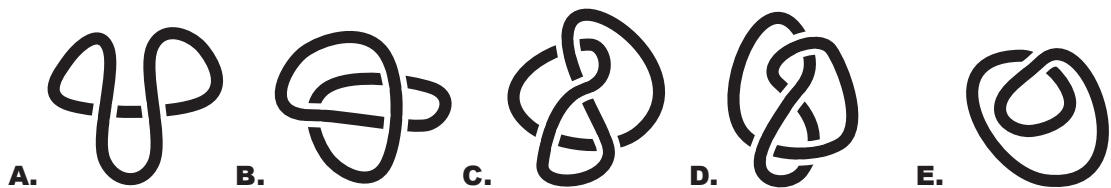
**15.** A jeweler makes chains out of rings.
You can see the measurements of these rings
alongside.
You can also see an example with three rings.
How long is a chain of five rings?

0,5 mm

4 mm

**A.** 16 mm    **B.** 17,5 mm    **C.** 18 mm    **D.** 19 mm    **E.** 20 mm

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**16.** A forty-page newspaper is made from 10 large sheets of paper. These lie on top of each other and
are then folded in the middle. Page 5 is missing from mister Antonissen's newspaper.
Which pages are also missing?

**A.** 6, 7 and 8    **B.** 6, 24 and 25    **C.** 6, 25 and 26    **D.** 6, 35 and 36    **E.** 8, 36 and 37

**17.** The three pictures alongside show you that 1+3 = 2x2,
that 1+3+5 = 3x3 and that 1+3+5+7 = 4x4
To what will 1+3+5+7+9+11+13+15+17+19+21 be equal?
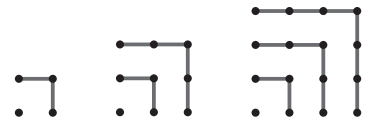
**A.** 10x10     **B.** 11x11     **C.** 12x12     **D.** 13x13     **E.** 14x14

**18.** A mill has 4 blades.
Tony is painting the blades of the mill.
He paints every blade yellow or red.
How many different mills can Tony produce?
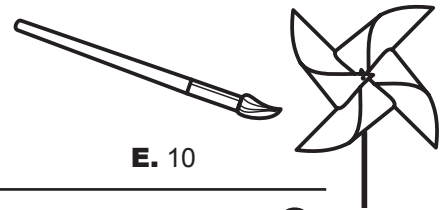
**A.** 6     **B.** 7     **C.** 8     **D.** 9     **E.** 10

**19.** Three equal dice are glued together; see the picture.
Opposite sides of dice together always have seven pips (black dots).
How many pips do the four faces that were glued together have in total?
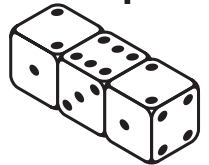
**A.** 12     **B.** 13     **C.** 14     **D.** 15     **E.** 16

**20.** The picture shows a balanced mobile.
The small rods weigh nothing.
The total weight of the mobile is 80 grams.
How much does the star weigh?
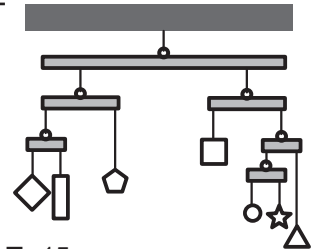
**A.** 3     **B.** 5     **C.** 10     **D.** 12     **E.** 15

**21.** Joey, Kim, Leonard, Mike and Nick stand in a circle and are chanting the dipping
rhyme KAN-GA-ROO-YOU-ARE-OUT. Somebody starts and says KAN.
They continue in the direction of the arrow. The child that has to say OUT,
has to quit the game; the others continue. Nick is left over last.
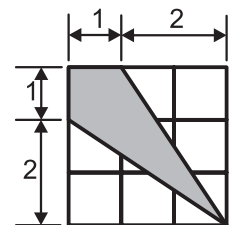Who started the dipping rhyme?
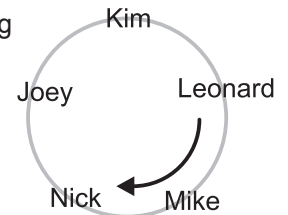
**A.** Joey     **B.** Kim     **C.** Leonard     **D.** Mike     **E.** Nick

**22.** Tony wrapped a piece of string around a piece of wood.
The picture shows the front.
What does the back look like?

**A.**    **B.**    **C.**    **D.**    **E.**
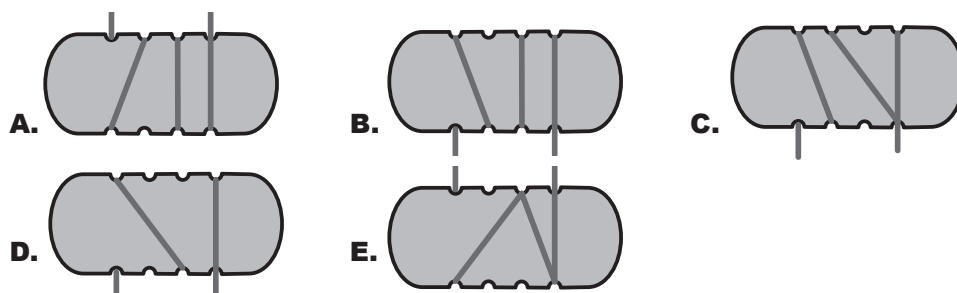
**23.** How many cm$^2$ is the area of the grey figure.

**A.** 2,5     **B.** 3     **C.** 3,5     **D.** 4     **E.** 4,5

**24.** In some lake live 6-, 7-, and 8-armed octopuses. The 7-armed ones always lie, the 6- and 8-armed ones
always speak the truth. Four octopuses are lying on the beach together: a blue one, a green one,
a yellow one, and a red one. The blue octopus says: 'Together we have 28 arms', the green one says:
"Together we have 27 arms", the yellow one says: "Together we have 26 arms", and the red one says:
"Together we have 25 arms".
What colour is the octopus that speaks the truth?

**A.** blue     **B.** green     **C.** yellow     **D.** red
**E.** no octopus speaks the truth