wizKID 2014

wereldwijde wiskunde wedstrijd

# W4Kangoeroe

## www.w4kangoeroe.nl

**March 20th 2014**

**Good luck and most of all have fun.**



calculators are not allowed

you may use 50 minutes

Only a pencel, an eraser and scribbling paper are allowed

results and prizes will arrive at school in May

answers will be posted on the website March 27th

solutions will be posted on the website April 20th

wizKID
groep 5 & 6 primary school

**1.** Which circle fits exactly on the centre of the star?

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

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**2.** *Jacky* wants to place the digit 3 somewhere in between, in front or behind the digits of the number 2014. She gets a five digit number.
Where should she put the 3 for the number to be as small as possible?

**A.** in front of the number 2014 **B.** in between 2 and 0 **C.** in between 0 and 1
**D.** in between 1 and 4 **E.** behind the number 2014

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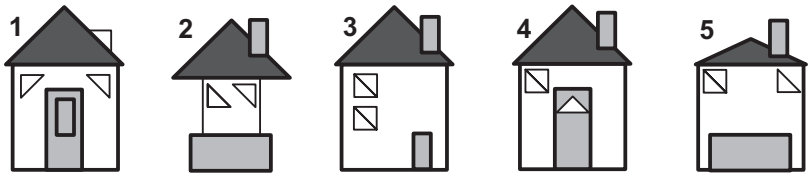
**3.** Which houses are made out of exactly the same triangles and rectangles?




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

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**4.** When *Koko* the Koala does not sleep, she eats 50 grams of leaves in one hour.
Yesterday she slept for 20 hours.
How many leaves did she eat yesterday?

**A.** 0 **B.** 50 **C.** 100 **D.** 150 **E.** 200

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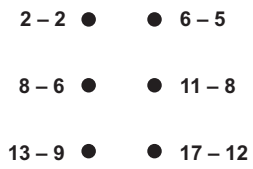
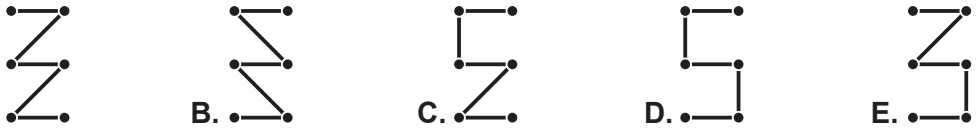
**5.** *Maria* makes minus-sums (see figure).
The answers are the numbers 0 up to and including 5.
She writes down the answers next to the dots.
She connects the dots in the following order 0-1-2-3-4-5
Which shape does she get?



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

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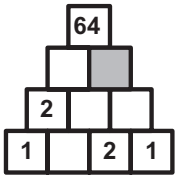
**6.** *Monica* makes a times-sum of numbers that are next to each other.
The answer she puts in the box above them.

Which number does she have to put in the grey box?




**A.** 0 **B.** 1 **C.** 2 **D.** 4 **E.** 8

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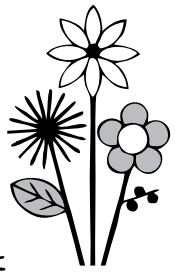
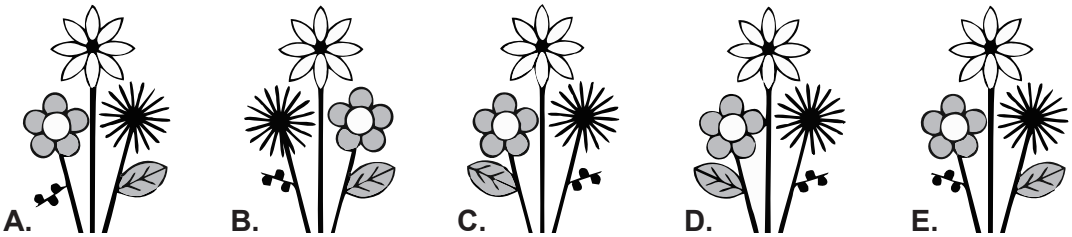
**7.** Mister *De Bruin* has painted these flowers on the inside of his shop window.



What do these flowers look like on the outside of the window?



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

**8.** *Adam* built fewer sand castles than *Martin* but more than *Suzanne*.
*Lucy* built more sand castles than *Adam* and more than *Martin*.
*Dana* built more sand castles than *Martin* but fewer than *Lucy*.
Who built the most sand castles?

**A.** *Martin* **B.** *Adam* **C.** *Suzanne* **D.** *Dana* **E.** *Lucy*

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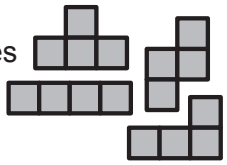
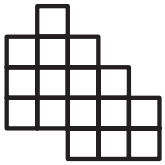
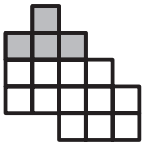
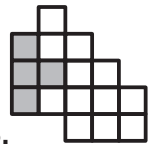
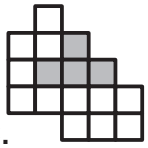
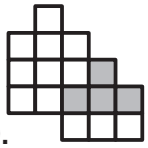
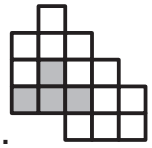
**9.** With these four pieces  Anne can cover this figure  completely.

Where does she have to put this piece  ?

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

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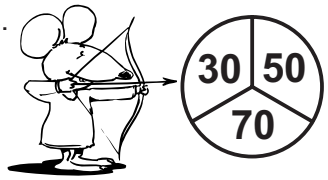
**10.** *Paula* shoots two arrows at a target and counts the number of points.
If she misses, she gets zero points.




Which of the following total amounts of points is *not* possible for her to get?

**A.** 60 **B.** 70 **C.** 80 **D.** 90 **E.** 100

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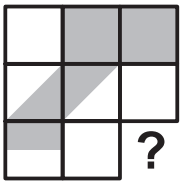
**11.** Which tile should go on the position of the question mark so that the white area of the tiles is just as large as the grey area?




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

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**12.** A jar was filled with sweets. *Sally* took half of the sweets.
Then *Tom* took half of what was still left in the jar.
Then *Clara* took half of the sweets that were still left.
In the end there were still 6 sweets in the jar.
How many sweets were in the jar at the beginning?

**A.** 12 **B.** 18 **C.** 20 **D.** 48 **E.** 96

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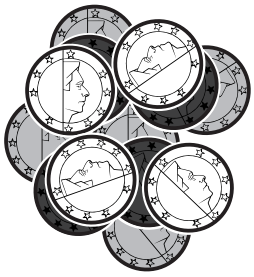
**13.** *Mary* had an equal number of grey, black and white coins.
She used some coins to make a pile.
In the figure you see all coins she has used.
She still has 5 coins left in her hand.



How many black coins did she have when she started?

**A.** 5 **B.** 6 **C.** 7 **D.** 15 **E.** 18

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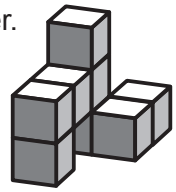
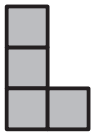
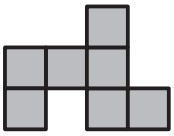
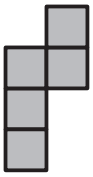
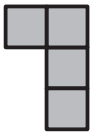
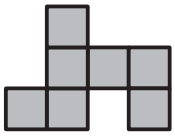
**14.** On planet *Kangaroo* a kang year has 20 kang months.
Each kang month has 6 kang weeks.
How many kang weeks are in a quarter kang year?

**A.** 9 **B.** 30 **C.** 60 **D.** 90 **E.** 120

**15.** The building in the drawing is made by glueing eight equal blocks together.



What does this building look like from above?

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

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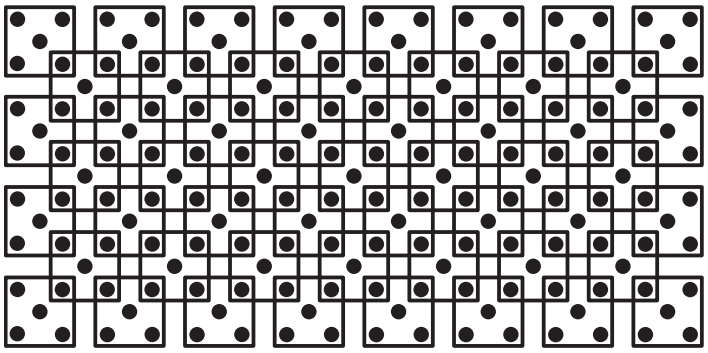
**16.** How many dots are in this figure?



**A.** 180 **B.** 181 **C.** 182 **D.** 183 **E.** 265

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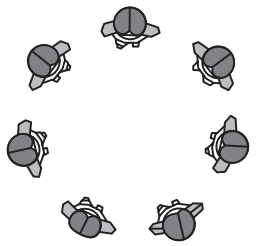
**17.** Seven children are in a circle.
Nowhere do two boys stand next to each other.
Nowhere do three girls stand next to each other.



Which statement is true of the number of girls that are in the circle?

**A.** only 3 is possible
**B.** 3 and 4 are both possible
**C.** only 4 is possible
**D.** 4 and 5 are both possible
**E.** only 5 is possible

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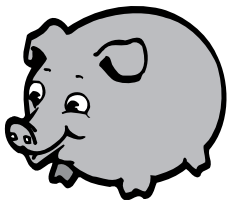
**18.** Pig *Oinky* very much loves melons and carrots.
Every day he eats either 9 carrots or 2 melons or 1 melon and 4 carrots.
During a week *Oinky* ate 30 carrrots.



How many melons did *Oinky* eat in this week?

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

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**19.** *Eva* sees a row of cards with letters.

| O | A | R | G | E | O | N | K | E |
|---|---|---|---|---|---|---|---|---|

In each turn, *Eva* may switch the positions of two cards.
What is the smallest number of turns that *Eva* needs to obtain the word KANGOEROE?

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

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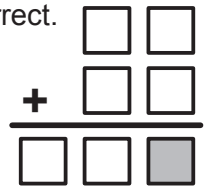
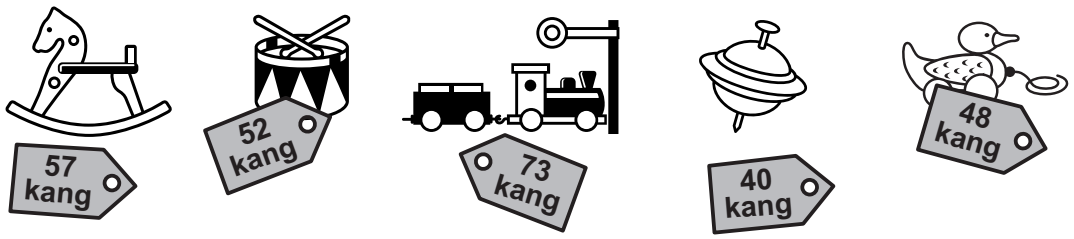
**20.** Write each of the numbers 0, 1, 2, 3, 4, 5, 6 in a box so that the addition is correct.



Which number will be in the grey box?

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

**21.** Kangaroo *Angus* bought toys and gave the shop owner 150 Kang coins.
He received 20 Kang coins in return.
Then he changed his mind and traded one toy for another one.
He received another 5 Kang coins back.
Which toys did *Angus* take from the shop?




**A.** the train and the drum
**B.** the train and the spinning-top
**C.** the train and the rocking horse
**D.** the duck and the rocking horse
**E.** the spinning-top, the duck and the rocking horse

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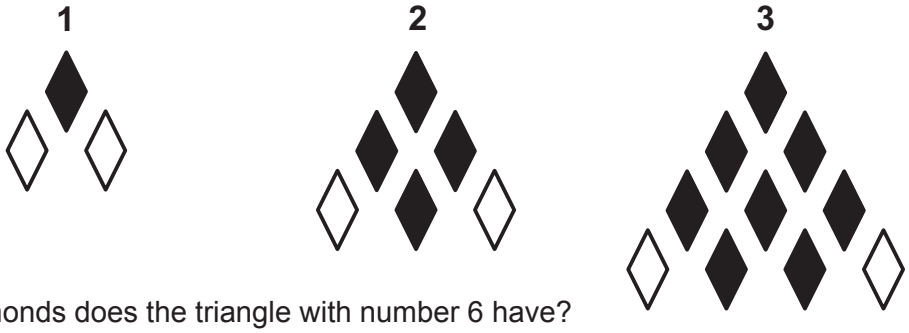
**22.** *Hamish* forms triangles using white and black diamonds.
Below you see the first three of such triangles.
At the bottom row the outer diamonds are always white.
All other diamonds in the triangle are black.




How many black diamonds does the triangle with number 6 have?

**A.** 19 **B.** 21 **C.** 26 **D.** 28 **E.** 34

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**23.** *Nick* has put the digits 1 to 9 in a square.
*Nick* looks at digit 5.
He discovers that the digits bordering 5 are 13 together.
He discovers that the digits bordering 6 are also 13 together.
Only four of the digits are shown in the square alongside.

| | | |
|---|---|---|
| 1 | | 2 |
| | | |
| 4 | | 3 |

Which digit did *Nick* put in the grey box?

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

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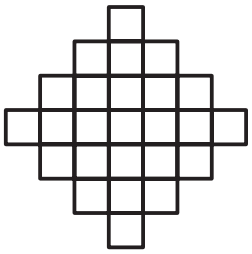
**24.** In the figure below *Victor* colours a number of squares grey.

He coulors them in such a way that there is nowhere a square like this  in the drawing.



What is the maximum number of squares he can colour?

**A.** 17 **B.** 18 **C.** 19 **D.** 20 **E.** 21