

© Stichting Wiskunde Kangoeroe



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 31<sup>th</sup>



solutions will be posted on the website about April 22<sup>th</sup>





www.e-nemo.nl

www.zwiisen.nl



www.education.ti.com



www.smart.b



www.sanderspuzzelboeken.nl



www.schoolsupport.nl



www.mathplus.n



www.hp-prime.nl

Premiums Relatiegeschenken bz.
Relatiegeschenken & Promotieartikelen
www.idpremiums.nl



vww.mathplay.eu





www.platformwiskunde.nl



www.denksport.nl



www.museumboerhaave.nl



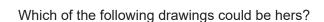
wizSMART 7 & 8 primary school

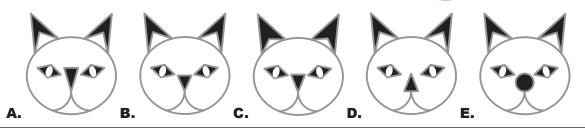
**1.** The Mayans wrote dots and bars for numbers. A dot was written for 1, and a bar for 5.

How did they write the number 17?



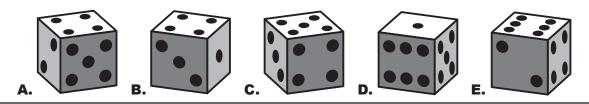
**2.** Carrie is going to draw a cat.
The ears and nose are done already (see figure).
Next, she finishes her drawing.





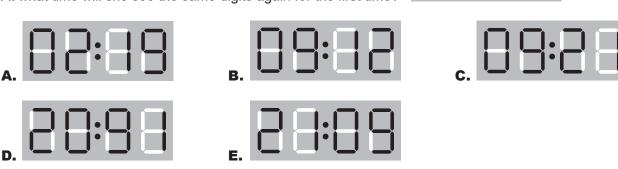
**3.** The numbers 1 through 6 are indicated with dots on an ordinary dice. If you add the dots on opposite faces, the result you get is always 7.

Which of the following dice could be an ordinary one?



**4.** Elise looks at her alarm clock and sees that the time is 20:19 (see figure).

At what time will she see the same digits again for the first time?



**5.** A group of kangaroos celebrates that their ages add up to 36 years. In 2 years time, they will celebrate that their ages add up to 60.

How many kangaroos are in this group?

**A.** 10

**B.** 12

**C.** 15

**D.** 20

**E.** 24

**6.** 16 girls and 10 boys are in a kindergarten classroom. Half the number of children will have to go outdoors.

At least how many girls will have to go outdoors?

**A.** 1

**B.** 2

**C.** 3

**D.** 4

**E.** 5

On how many days of those 9 days Rick was very hungry?

**C.** 3

**D.** 6

**E.** 9

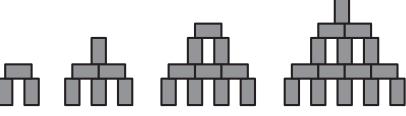
**B.** 2

**A.** 1

Which of the following shapes is not part of the design below?

**7.** 

**13.** Using blocks of 1 cm by 1 cm by 2 cm you can make buildings in the way shown in the figure alongside.



How high will the building be that is made out of 28 blocks?

**A.** 9 cm

**B.** 11 cm

**C.** 12 cm

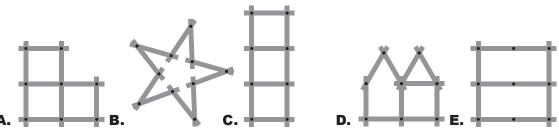
**D.** 14 cm

**E.** 17 cm

**14.** *Pia* makes various figures out of connected sticks (see picture).



Which of the following figures cannot be made with these sticks?



**15.** On each face of the cube alongside, a positive integer is written.



*Karel* multiplies the numbers on opposite faces. He always gets the same result. Now he adds all the numbers on the cube.

What is the least possible result *Karel* can get?

**A.** 36

**B.** 37

**C.** 41

**D.** 44

**E.** 60

16. Alex, Bob and Cees go for a walk every day. If Alex does not wear a hat, then Bob wears a hat. If Bob does not wear a hat, then Cees wears a hat. Today Bob does not wear a hat.

Who does wear a hat today?

A. both Alex and Cees

**B.** only *Alex* 

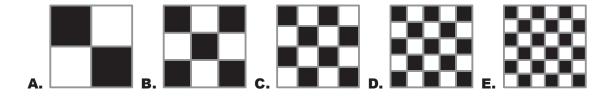
C. only Cees

**D.** neither *Alex* nor *Cees* 

**E.** impossible to know

**17.** 5 paintings are shown in a museum for modern art.

For which painting has been used the most black paint?



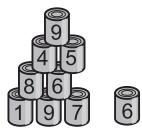
**18.** Robert makes 5 statements; see **A.** through **E.**. Exactly 1 of them is <u>not</u> true.

Which statement is not true?

- A. My son Basil has 3 sisters.
- C. My daughter *Anna* has 2 sisters.
- E. I have 5 children.

- **B.** My daughter *Anna* has 2 brothers.
- **D.** My son *Basil* has 2 brothers.

**19.** *Jette* and *Willy* throw balls at 2 identical towers, made out of 15 empty cans. *Jette* knocks down 6 cans, scoring 25 points in total. *Willy* knocks down 4 cans.



After Jette's throw.

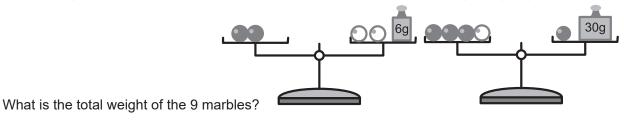


After Willy's throw.

How many points did Willy score in total?

- **A.** 22
- **B.** 23
- **C.** 25
- **D.** 26
- **E.** 28

**20.** 6 identical grey marbles and 3 identical white marbles are put on 2 scales (see figure).

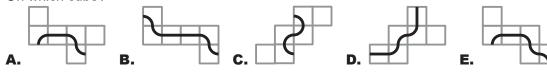


- **A.** 90 gram
- **B.** 94 gram
- **C.** 96 gram
- **D.** 99 gram
- **E.** 100 gram
- **21.** In the garden of a witch there are dogs, cats and mice. In total there are 30 animals. The witch turns 6 dogs into cats. Then she turns 5 cats into mice. Now there are the same numbers of dogs and cats and mice in her garden.

How many cats were there in the beginning?

- **A.** 4
- **B.** 5
- **C.** 9
- **D.** 10
- **E.** 11
- **22.** Below, 5 nets of a cube are shown. *Peter* folds each of them into a cube. On 1 cube the endpoints of the line will meet.

On which cube?



**23.** Linas makes a large 4 by 4 by 4 cube out of 32 small white and 32 small black cubes of 1 by 1 by 1. He does this in such a way that as much as possible of the outside is white.

Which part of the outside of the large cube will be white then?

- **A.**  $\frac{1}{4}$
- **B.**  $\frac{3}{8}$
- **c**.  $\frac{1}{2}$
- **D.**  $\frac{2}{3}$
- **E.**  $\frac{3}{4}$
- **24.** Fatima took selfies with her 8 nieces. Each of the 8 nieces is in 2 or 3 pictures. Each picture shows Fatima with exactly 5 of her nieces.

How many selfies did *Fatima* take?

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