19. The band shown in the drawing can be fastened in five ways.

Unfastened belt

2 cm

Band fastened in the first hole
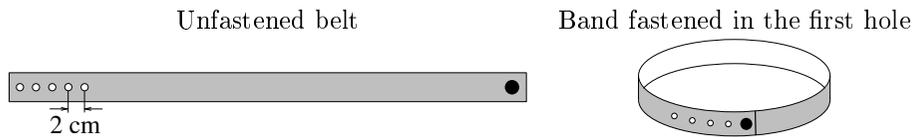
How much longer is the band fastened in the first hole than the band fastened in the fifth hole?

A) 4 cm   **B)** 8 cm   **C)** 10 cm   **D)** 16 cm   **E)** 20 cm

20. In an ancient language the symbols , , , , represent the following numbers: 1, 2, 3, 4, and 5. Nobody knows which symbol represents which number. We know that:
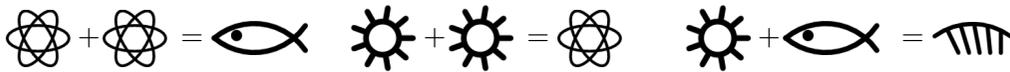
Which symbol represents the number 3?

A)   **B)**   **C)**   **D)**   **E)**

21. Jumper the kangaroo is jumping only 2 m long and moves according to the following rule: after every three jumps forward, he makes one jump back. He defeated a certain route, thus making a total of fourteen jumps. How many meters did this route count?

A) 8   **B)** 16   **C)** 15   **D)** 24   **E)** 10

22. The large rectangle is made up of a number of squares of various sizes. The 3 small squares each have an area of 1. What is the area of the large rectangle?

**A)** 165   **B)** 176   **C)** 187   **D)** 198   **E)** 200
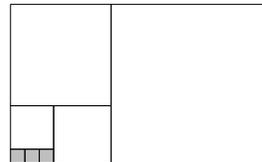
23. A two-digit number is given. If we add 11 to it, the result will be a three-digit number. If we subtract 11 from it, then the result will be equal to the product of two equal one-digit numbers. The given two-digit number is

A) 75.   **B)** 81.   **C)** 89.   **D)** 90.   **E)** 92.

24. Loes wants to write the numbers from 1 to 7 in the grid shown. Two consecutive numbers can not be written in two neighbouring cells. Neighbouring cells meet at the edge or at a corner. What numbers can she write in the cell marked with a question mark?

A) Any of seven numbers **B)** Any odd number **C)** Any even number
D) Only number 4   **E)** Only numbers 1 or 7
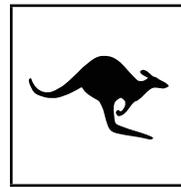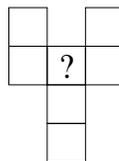
 # KANGAROO 2018   **M**

Minor
3–4 grades

Questions for 3 points

1. Leonie has 10 rubber stamps. Each stamp has one of the digits: 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. She prints the date of the Kangaroo contest. How many stamps does she use?

A) 5   **B)** 6   **C)** 7   **D)** 9   **E)** 10

2. The picture shows 3 flying arrows and 9 fixed balloons. When an arrow hits a balloon, it bursts, and the arrow flies further in the same direction. How many balloons will be hit by the arrows?
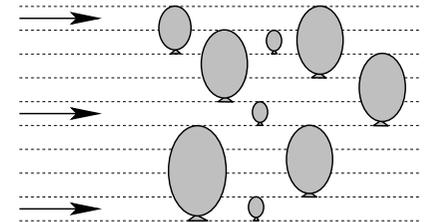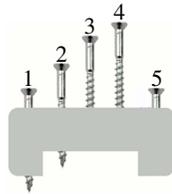

A) 2   **B)** 3   **C)** 4   **D)** 5   **E)** 6

3. Susan is 6 years old. Her sister is two years younger and her brother is two years older. What is the sum of the ages of the three siblings?

A) 10   **B)** 15   **C)** 18   **D)** 21   **E)** 30

4. The picture shows five screws in a block. Four screws are the same length. One screw is shorter. Which screw is the shortest?
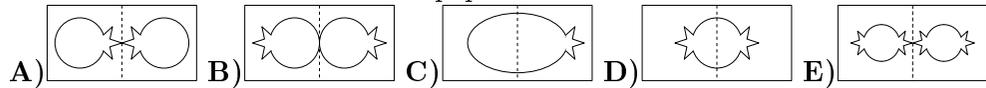

A) 1   **B)** 2   **C)** 3   **D)** 4   **E)** 5

5. Here is Sophie the ladybird: . She turns around. Which picture of the ladybirds below is not Sophie?
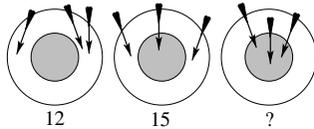

A)   **B)**   **C)**   **D)**   **E)**

6. Lucy folds a sheet of paper in half. Then she cuts a piece out of it: . What will she see when she unfolds the paper?

A) **B)** **C)** **D)** **E)**

7. First, Diana scores 12 points in total with three arrows. On her second turn she scores 15 points. How many points does she score on her third turn?
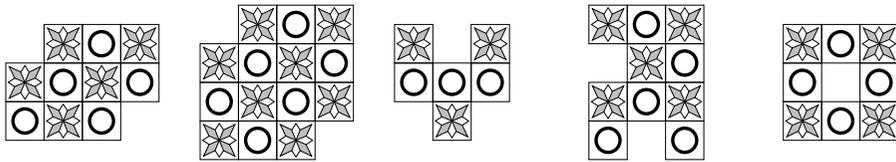

A) 15 **B)** 18 **C)** 21 **D)** 24 **E)** 27

8. Mike sets the table for 8 people. He must set the table correctly for the persons sitting at the table. Correctly means the fork on the left of each plate and the knife on the right. How many people does Mike set the table correctly for?

A) 5 **B)** 4 **C)** 6 **D)** 2 **E)** 3
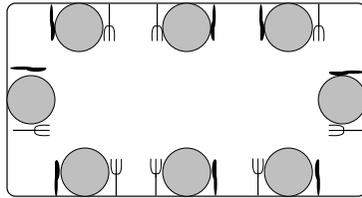
Questions for 4 points

9. Roberto makes designs using tiles like this: . How many of the 5 designs can he make?

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

10. Cuba wrote on the board a number consisting of five nines. Then he wiped off the first two digits of the number and wrote in their sum instead. Then he did the same with the newly received number and repeated with each subsequent number until he obtained the one-digit number. How many times has Cuba performed the replacement of the first two digits by their sum?
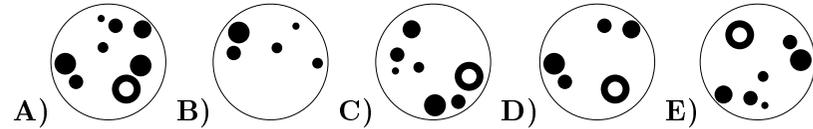
A) 4 **B)** 5 **C)** 6 **D)** 7 **E)** 8

11. Tom cuts two types of pieces out of grid paper: square and trapezium.

Square   Trapezium   Boat

What is the smallest number of pieces that Tom needs in order to assemble the boat in the picture?

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

12. The colours in this picture must be swapped over. Then the picture has to be turned around. What does the new picture look like?


A) **B)** **C)** **D)** **E)**

13. Peta rabbit has 20 carrots. She eats 2 carrots every day. She ate the 12th carrot on Wednesday. On which day did she start eating the carrots?
A) Monday **B)** Tuesday **C)** Wednesday **D)** Thursday **E)** Friday

14. Toby glues 10 cubes together to make the structure shown below. He paints the whole structure, even the bottom. How many cubes are painted on exactly 4 of their faces?


A) 6 **B)** 7 **C)** 8 **D)** 9 **E)** 10
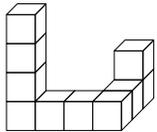
15. There are 8 flowers on a rose bush. Some butterflies and some dragonflies sit on the flowers. There are no more than one insect per flower. More than half of the flowers are occupied. The number of butterflies on the flowers is twice the number of dragonflies on the flowers. How many butterflies sit on the flowers?
A) 2 **B)** 3 **C)** 4 **D)** 5 **E)** 6

16. Captain Kook wants to sail from the island called Easter through every island on the map and back to Easter. The total journey is 100 km long. The distance between Desert and Lake is the same as the distance between Easter and Flower via Volcano. How far is it directly from Easter to Lake?

A) 17 km **B)** 23 km **C)** 26 km **D)** 33 km **E)** 35 km
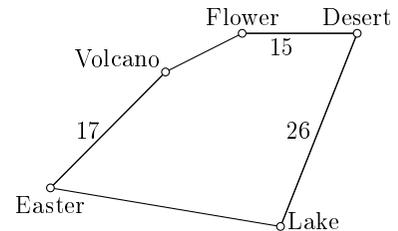
Questions for 5 points

17. Ann's twin brothers were born when she celebrated her 8th birthday. Now Ann has 5 years more than the sum of her brothers' ages. How old is she now?
A) 9 **B)** 11 **C)** 12 **D)** 13 **E)** 15

18. Four balls each weigh 10 g, 20 g, 30 g and 40 g. Which ball weighs 30 g?

A) A **B)** B **C)** C **D)** D **E)** It could be A or B