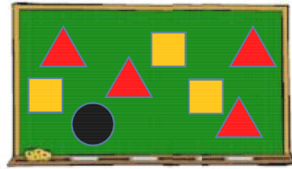**20.** The numbers from 1 to 8 were written on the board. The teacher covered them with triangles, squares and a circle.
If you add the four numbers covered by triangles the sum is 10. If you add the three numbers covered by squares the sum is 20. Which number is covered by the circle?

(A) 3   (B) 4   (C) 5   (D) 6   (E) 7

21. Jane wants to colour the heads, wings and tails of parrots   with three different colours: red, blue and green. She colours one parrot's head red, the wings green and the tail blue. How many more parrots can she colour so that all the parrots are coloured differently?

(A) 1   (B) 2   (C) 4   (D) 5   (E) 9

22. Several teams came to the summer Kangaroo camp. Each team has 5 or 6 members. There are 43 people in total. How many teams are at this camp?

(A) 9   (B) 8   (C) 7   (D) 6   (E) 4

23. Which key would be impossible to cut into three different figures of five shaded squares?

(A)   (B)   (C)   (D)   (E)
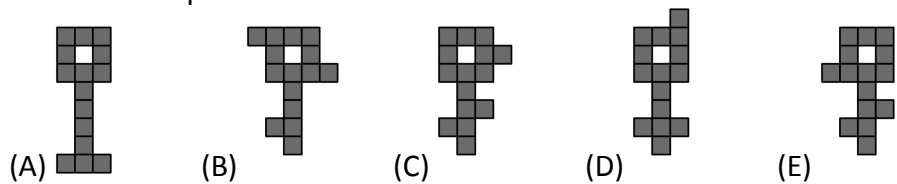
24. Ann replaces letters in the calculation $KAN - ROO + GA$ with numbers from 1 to 9 and then calculates the result. The same letters are replaced by the same numbers and different letters by different numbers. What is the largest possible result she could get?

(A) 925   (B) 933   (C) 939   (D) 942   (E) 948

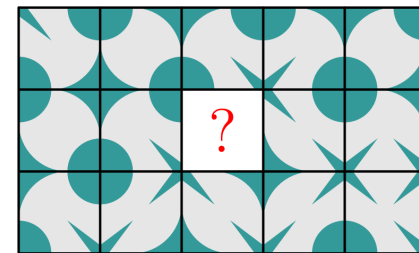**March 29, 2020**   **Grade 3-4**
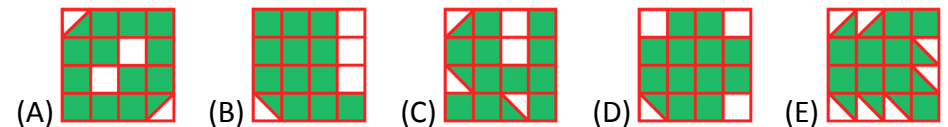
3 point problems

1. A mushroom grows every day. Mary takes a picture of the mushroom each day from Monday to Friday. Which of these pictures was taken on Tuesday?

(A)   (B)   (C)   (D)   (E)

2. Which piece completes the pattern?

?

(A)   (B)   (C)   (D)   (E)

3. Which of the following figures has the largest shaded part?

(A)   (B)   (C)   (D)   (E)

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4. Timur shades all the squares in the grid where the result is 20. Which shape does he get?

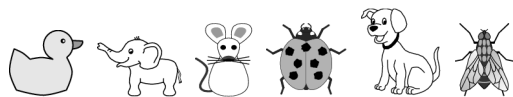| $16+4$	$19+1$	$28-8$
$2 \cdot 10$	$16-4$	$7 \cdot 3$

(A)   (B)   (C)

(D)   (E)

5. You can make different figures by using these pieces:

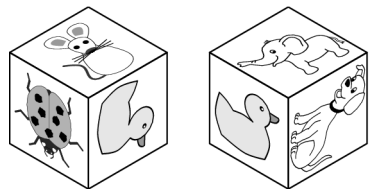Which of the figures below can you make with these pieces?

(A)   (B)   (C)   (D)   (E)

6. Jorge glues these 6 stickers to the faces of a cube:

The pictures shows the cube in two positions.

Which sticker is on the opposite face to the duck?

(A)   (B)   (C)   (D)   (E)

17. A standard dice has 7 as the sum of the dots on opposite faces. The dice is put on the first square as shown and then rolls towards the right. When the dice gets to the last square, what is the total number of dots on the three faces marked with the question marks?

/1/2/3/4/5/6/

(A) 6   (B) 7   (C) 9   (D) 11   (E) 12

18. 6 people each order one scoop of ice cream.
They order 3 scoops of vanilla, 2 scoops of chocolate and 1 scoop of lemon.
They top the ice creams with 3 cherries, 2 wafers and 1 chocolate chip.
They use one topping on each scoop, such that no two ice creams are alike.
Which of the following combinations is not possible?
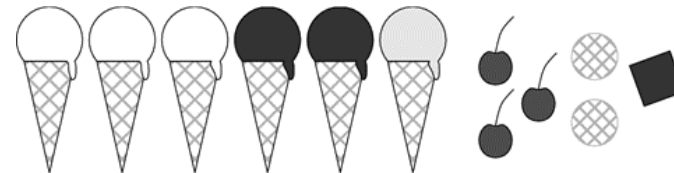
(A) chocolate with a cherry   (B) vanilla with cherry
(C) lemon with a wafer   (D) chocolate with a wafer
(E) vanilla with a chocolate chip

19. The Queen tries to find out the three names of Rumpelstiltskin's wife.
She asks her:
"Are you called Adele Lilly Cleo?"
"Are you called Adele Laura Cora?"
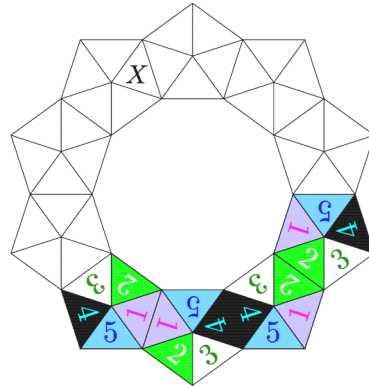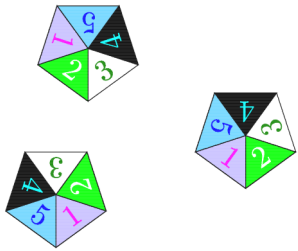"Are you called Abbey Laura Cleo?"
Each time exactly one name and its position was right.
What is the name of Rumpelstiltskin's wife?

(A) Abbey Lilly Cora   (B) Abbey Laura Cora   (C) Adele Laura Cleo
(D) Adele Lilly Cora   (E) Abbey Laura Cleo
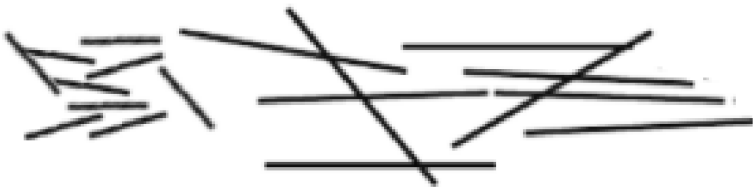
15. Amelie wants to build a crown using these tokens

When two tokens share a side, the corresponding numbers match.
Four tokens have already been placed. Which number goes in the triangle marked with an X?

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

16. Farid has two types of sticks: short ones, measuring 1 cm and long ones, measuring 3 cm.

With which of the combinations below can he make a square, without breaking or overlapping the sticks?

(A) 5 short and 2 long   (B) 3 short and 3 long   (C) 6 short
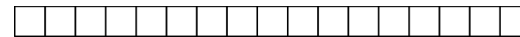(D) 4 short and 2 long   (E) 6 long

7. Elli draws the big square with chalk on the pavement. She starts jumping from number 1. She jumps from each number to the number that is 3 more again and again. What is the largest number Elli can jump onto?

1	5	8	11
4	7	10	14
24	23	13	18
21	19	16	20

(A) 11   (B) 14   (C) 18   (D) 19   (E) 24

8. Casper has the following 7 pieces (see the picture on the right).
He covers this grid
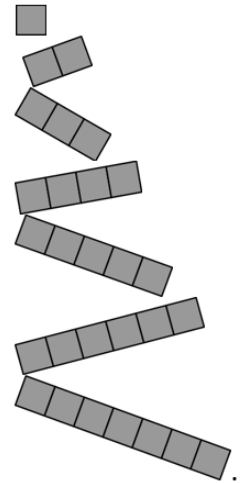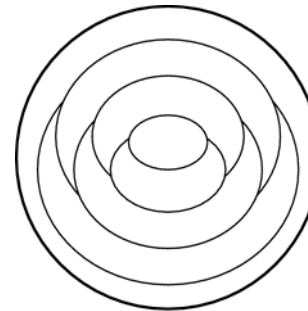

without overlap.
He uses as many different pieces as possible.
How many pieces does Casper use?
(A) 3   (B) 4   (C) 5   (D) 6   (E) 7

4 point problems

9. Cindy colours each region on the plate either red, blue or yellow. She colours neighbouring regions with different colours. She colours the outer ring of the plate red.
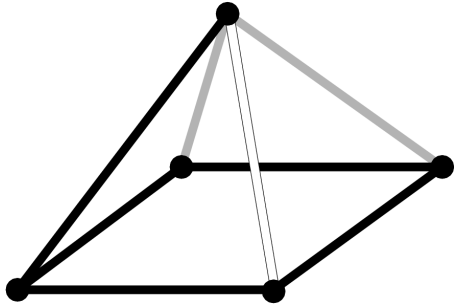
How many regions are red?

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

10. The sum of three numbers is 50. Karin subtracts a secret number from each of these three numbers. She gets 24, 13 and 7 as the results. Which one of the following is one of the original three numbers?
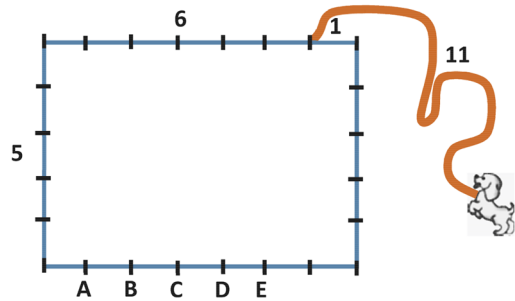
(A) 9   (B) 11   (C) 13   (D) 17   (E) 23

11. Loes looks at the pyramid from above. What does Loes see?
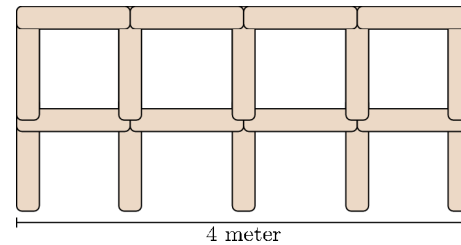
(A) (B) (C) (D)

(E)

12. Dennis ties a dog 1 meter from a corner of a 7 meters by 5 meters hut as shown in the picture using an 11 meters long leash. Dennis places treats at the places marked with the letters. How many of the treats could the dog reach?

6
1
11
5

A   B   C   D   E

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

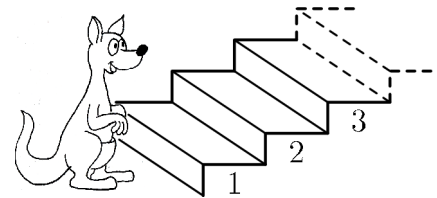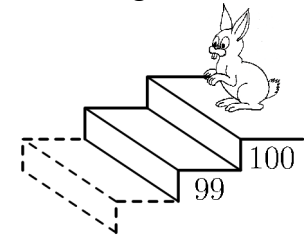**13.** Lonneke builds a fence using 1 meter long poles.
The picture shows a 4 meter long fence.

4 meter

How many poles does Lonneke need to build a 10 meter long fence?

(A) 22   (B) 30   (C) 33   (D) 40   (E) 42

14. Every time the kangaroo goes up 7 steps, the rabbit goes down 3 steps.

100
99

3
2
1

On which step do they meet?

(A) 53   (B) 60   (C) 63   (D) 70   (E) 73