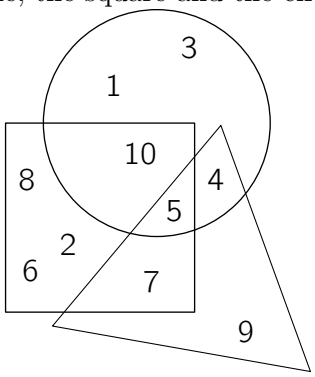
Pre-Ecolier

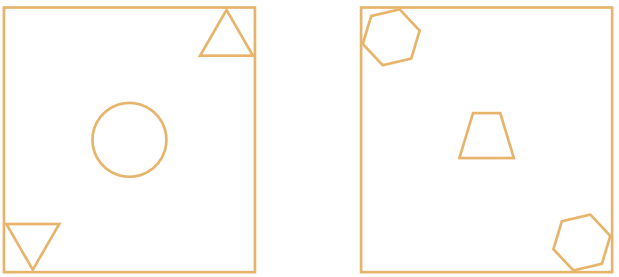
3 points

1. Which number is inside the triangle, the square and the circle?

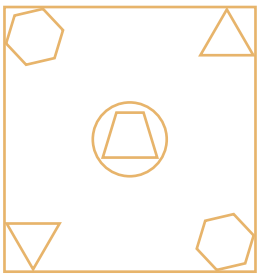


(**A**) 1 (**B**) 4 (**C**) 5 (**D**) 9 (**E**) 12

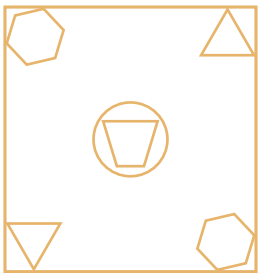
2. Some shapes are printed on 2 pieces of glass. Anna places one on top of the other, without turning either piece. What does she see?



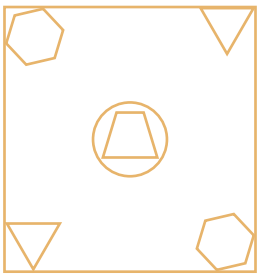
(**A**)



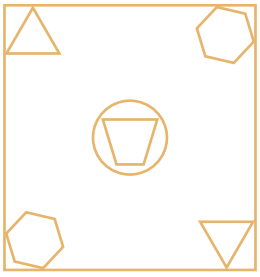
(**B**)



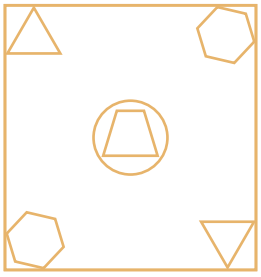
(**C**)



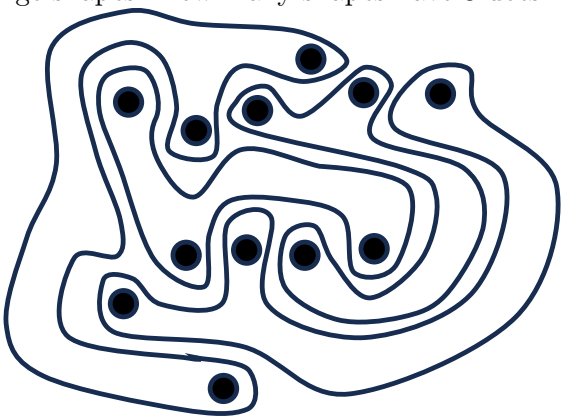
(**D**)



(**E**)

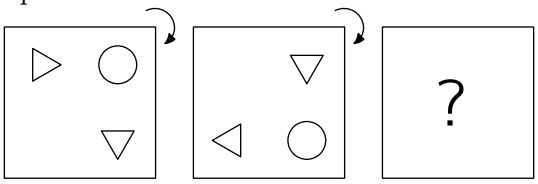


3. The picture shows 4 strange shapes. How many shapes have 3 dots inside?

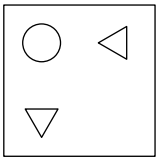
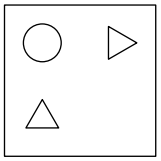
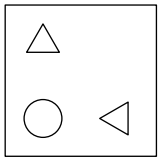
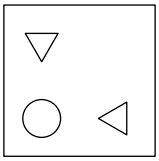
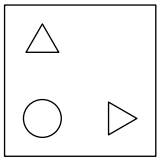


(**A**) 0 (**B**) 1 (**C**) 2 (**D**) 3 (**E**) 4

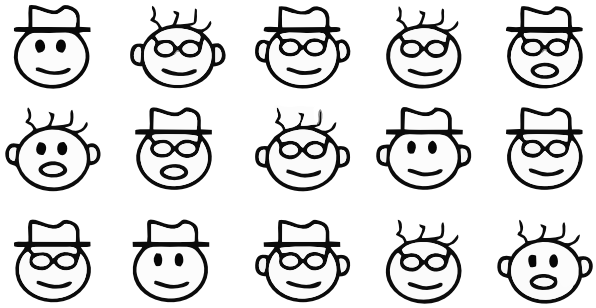
4. Kevin the kangaroo puts a picture on the table.



He rotates the picture through a quarter turn, as shown. He then does the same rotation again. What does Kevin see now?

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

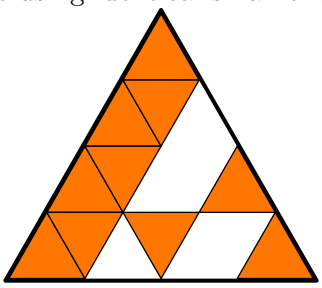
5. In the picture, there are 8 different faces.



Each face appears twice, except for one. Which face appears only once?

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

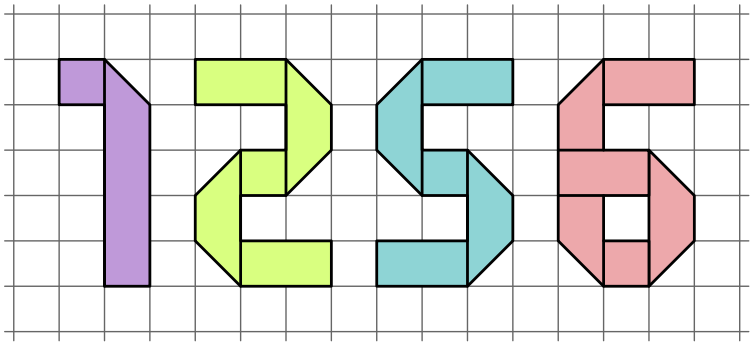
6. Bruno is making this large triangle using identical small triangular tiles.



How many more tiles does Bruno need to complete the large triangle?

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

7. Each number below is made using a piece of ribbon.

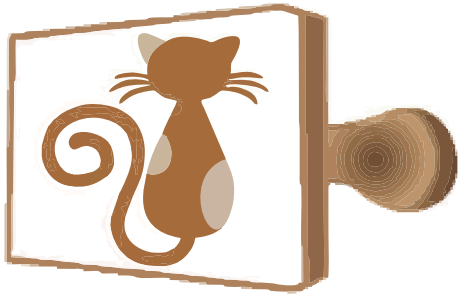


Which piece of ribbon is the longest?

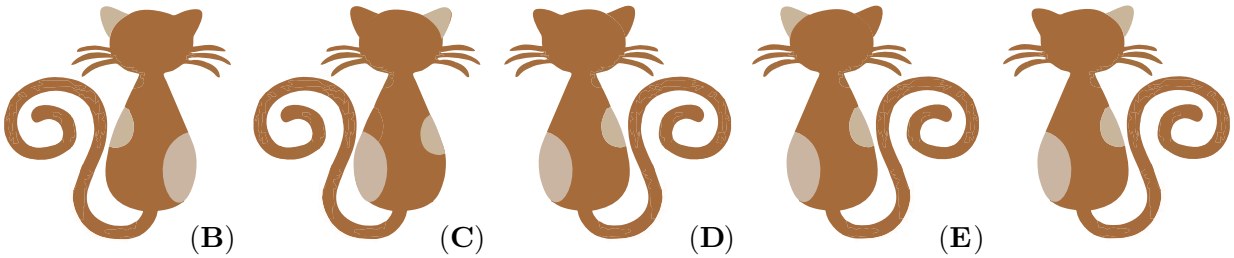
(**A**) 1 (**B**) 2 (**C**) 5 (**D**) 6

(**E**) They are all the same length.

8. Elena uses the stamp shown to make a picture. Which picture does she make?

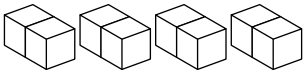


(**A**) (**B**) (**C**) (**D**) (**E**)

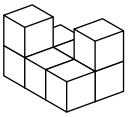
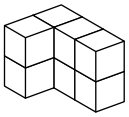
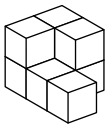
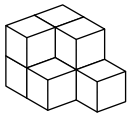
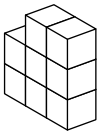


4 points

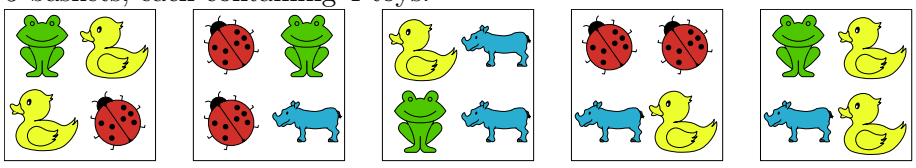
9. A student has 4 blocks, as shown.



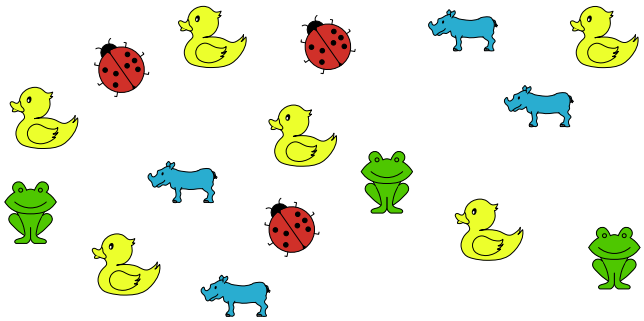
Which of the following shapes cannot be made using these 4 blocks?

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

10. Chen has 5 baskets, each containing 4 toys.



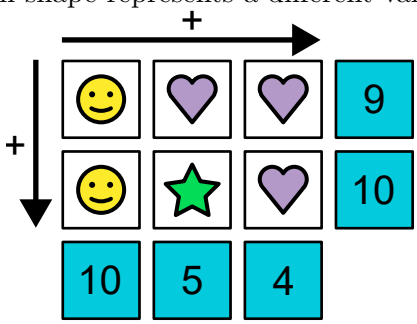
He dropped 4 of the baskets and the toys were mixed up.



Which basket did he not drop?

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

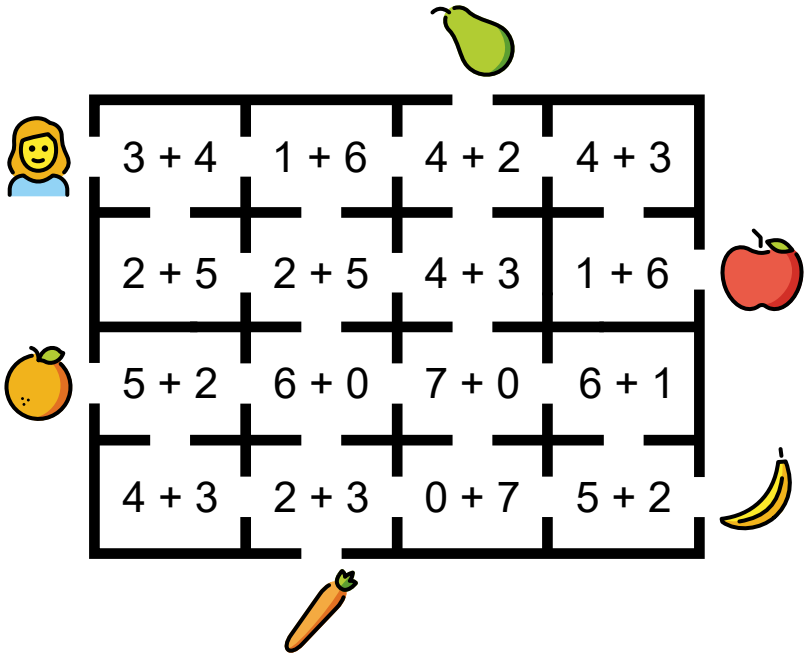
11. In the following diagram, each shape represents a different value.



What is the value of  ?

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

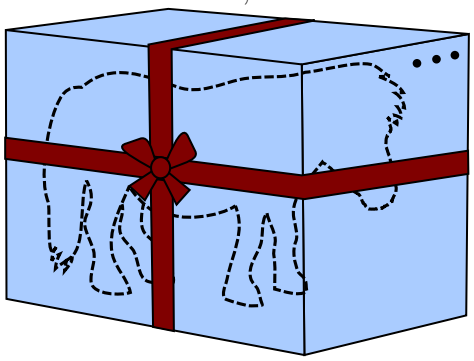
12. Catrina wants to walk through the maze so that she visits only rooms where the answer to the sum is 7.



Which object can Catrina reach?

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

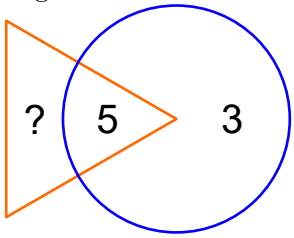
13. A toy pony is inside a box that is 1 metre tall, 1 metre wide and 2 metres long.



A ribbon goes around the box, as shown. The knot uses an extra 1 metre of ribbon. How long is the ribbon in total?

(**A**) 9 metres (**B**) 11 metres (**C**) 13 metres (**D**) 15 metres (**E**) 17 metres

14. The sum of the numbers in the triangle should be twice the sum of the numbers in the circle.



What number must replace the question mark?

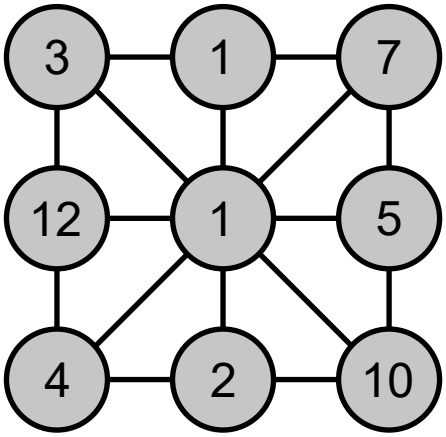
(**A**) 3 (**B**) 5 (**C**) 8 (**D**) 11 (**E**) 16

15. A line of pictures is made by repeating this pattern of 5 pictures  always in the same order.

Which picture is in the 27th position in the line?

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

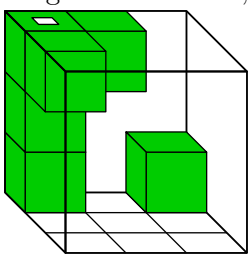
16. One of the numbers in the picture is equal to the sum of the numbers connected directly to it. Which number is this?



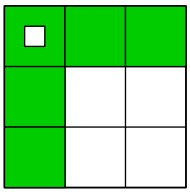
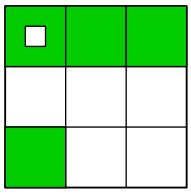
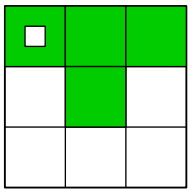
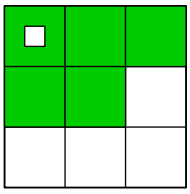
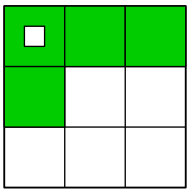
(A) 3 **(B)** 5 **(C)** 7 **(D)** 10 **(E)** 12

5 points

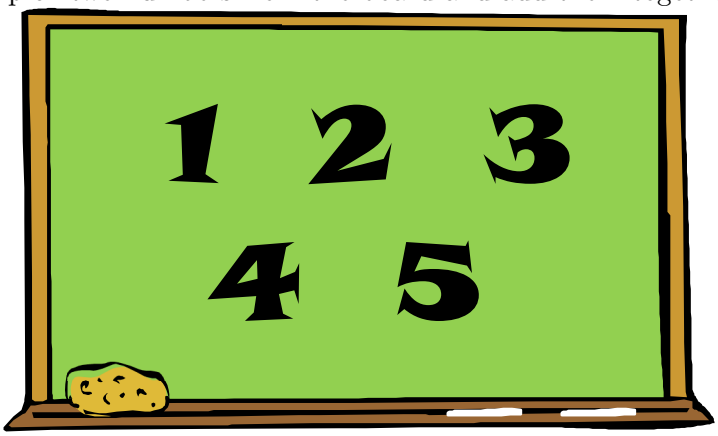
17. Chiara has a transparent box containing 6 small cubes, as shown.



What does Chiara see if she looks at the box from above?

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

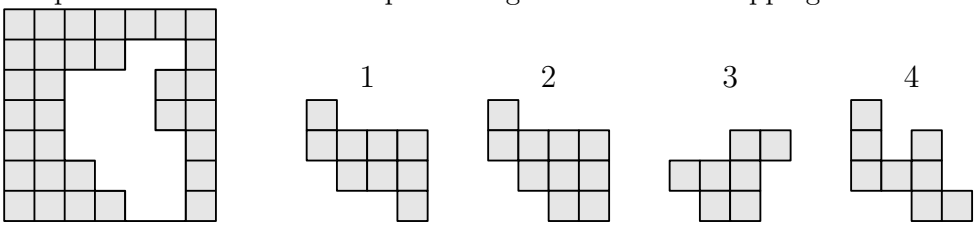
18. Esteban wants to pick two numbers from the board and add them together.



How many different results could Esteban get?

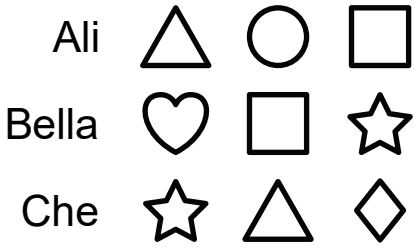
(**A**) 5 (**B**) 6 (**C**) 7 (**D**) 8 (**E**) 10

19. Which two pieces can be used to complete the grid without overlapping?



(**A**) 1 and 2 (**B**) 1 and 3 (**C**) 3 and 4 (**D**) 2 and 4 (**E**) 2 and 3

20. Ali, Bella, Che and Dimitry each have 3 shapes. Each child has exactly one shape in common with every other child.



Which shapes does Dimitry have?

(**A**) 

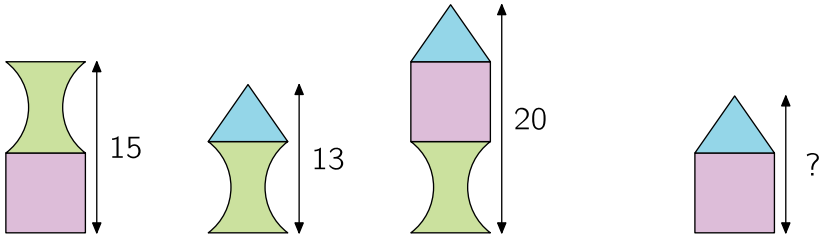
(**B**) 

(**C**) 

(**D**) 

(**E**) 

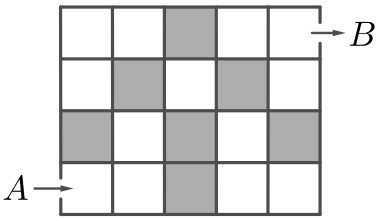
21. Zoran builds towers from three types of blocks. The heights of three of them are shown in the picture.



What is the height of the fourth tower?

(**A**) 12 (**B**) 13 (**C**) 14 (**D**) 16 (**E**) 17

22. Zara wants to move through the grid from A to B. She can only move to the right or upwards. Each time she visits a grey box, she has to pay 1 euro. Each time she visits a white box, she has to pay 2 euros. How much would she pay for the cheapest path?



(**A**) 11 euros (**B**) 12 euros (**C**) 13 euros
(**D**) 15 euros (**E**) 16 euros

23. Julia has a list of problems to finish during May. She starts on the 1st of May.

MAY 2024

Mon	Tue	Wed	Thu	Fri	Sat	Sun
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

If she solves exactly 2 problems each day, she will finish the task on a Sunday. If she solves exactly 3 problems each day, she will finish the task on a Wednesday. How many problems are on the list?

(**A**) 6 (**B**) 12 (**C**) 18 (**D**) 24 (**E**) 30

24. Andrew was throwing darts at a target. He started with 10 darts and got 2 new darts each time he hit the target. In total, Andrew threw 20 darts and then had no darts left. How many times did Andrew hit the target?

(**A**) 4 (**B**) 5 (**C**) 6 (**D**) 8 (**E**) 10