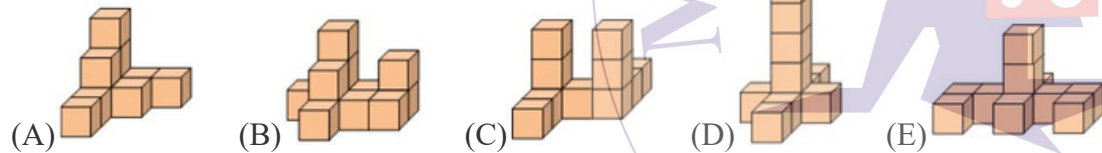


MK Team Level 1-2 Sample

Multiple-choice Questions

1. Which shape can we make with 10 cubes?

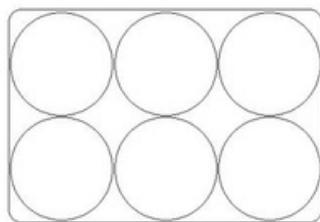


2. We choose four numbers from 1, 3, 4, 5, and 7. We write one number in each square so that the equation is correct. Which number is not chosen?

$$\square + \square = \square + \square$$

- (A) 1 (B) 3 (C) 4 (D) 5 (E) 7

3. Agatha the Hen lays white and brown eggs. Lisa puts six eggs in the box below. Two brown eggs cannot touch each other. At most, how many brown eggs can Lisa put in the box?



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

4. You have to close two of the five gates so that the mouse cannot reach the cheese. Which gates should you close?



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

5. The two transparent squares are put on top of each other. What can you see?

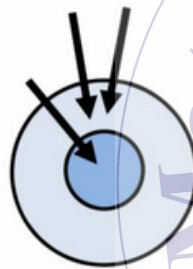
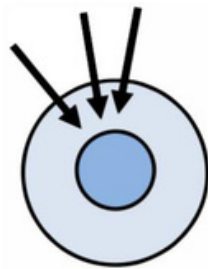


- (A) (B) (C)
- (D) (E)

6. Granny went out to the yard and called all the hens and her cat named Kitty. All 20 legs ran to her. How many hens does Granny have?

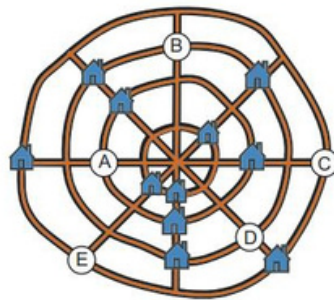
- (A) 11 (B) 9 (C) 8 (D) 6 (E) 4

7. Diana took part in an archery contest. On her first try, Diana got 6 points with three arrows on the target, as in the left picture. The second time she got 8 points, as in the middle picture. How many points did she get the third time?



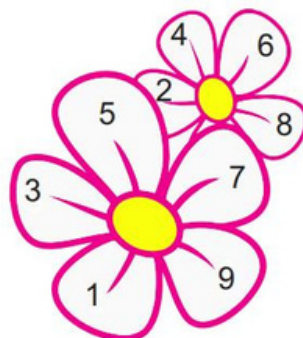
- (A) 8 (B) 10 (C) 12 (D) 14 (E) 16

8. A village with 12 houses has four straight roads and four circular roads. The map shows 11 of the houses. On each straight road there are 3 houses. On each circular road there are also 3 houses. Where is the 12th house?



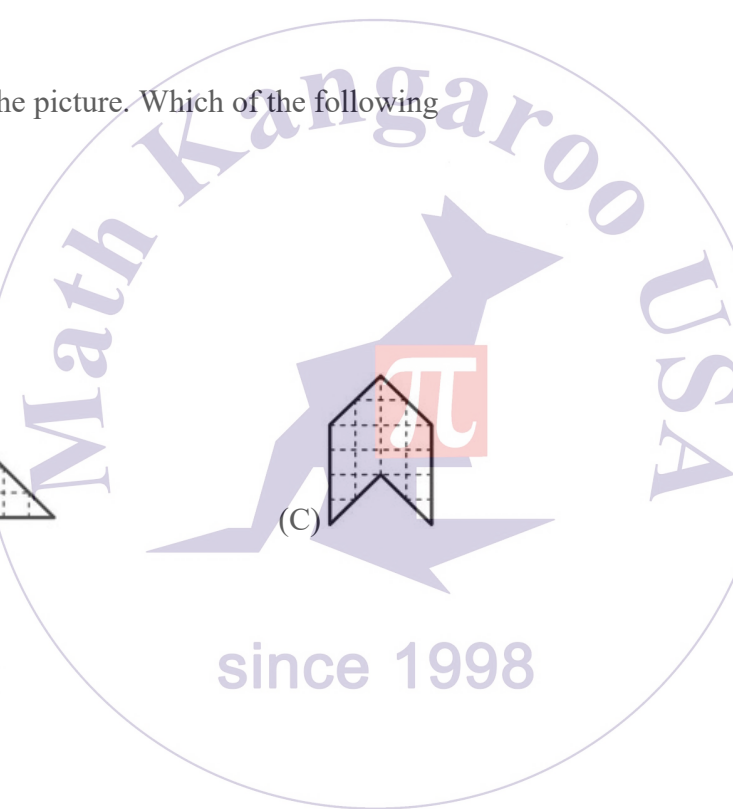
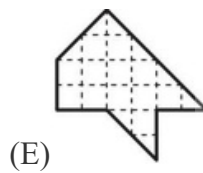
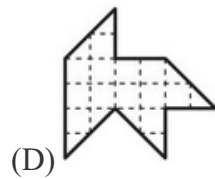
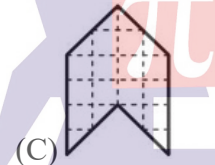
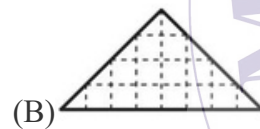
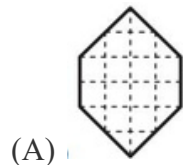
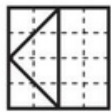
- (A) A (B) B (C) C (D) D (E) E

9. A number is written on each petal of two flowers. One petal is hidden. The sums of the numbers on the two flowers are equal. What number is written on the hidden petal?

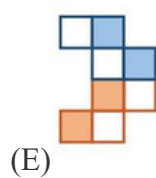
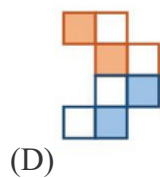
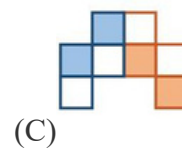
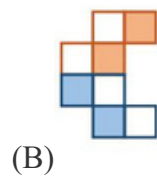
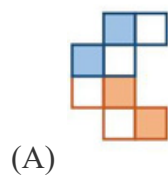
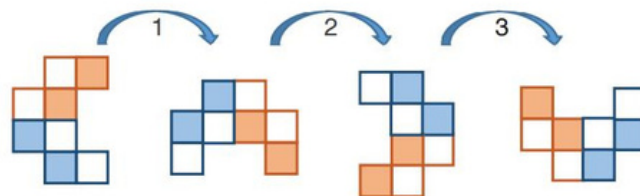


- (A) 0 (B) 3 (C) 5 (D) 7 (E) 1

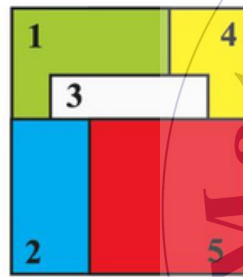
10. A square was cut into 4 parts as shown in the picture. Which of the following shapes cannot be made with these 4 parts?



11. Alfred is rotating a shape six times. The first three rotations are shown in the picture. How does the shape look like at the end?

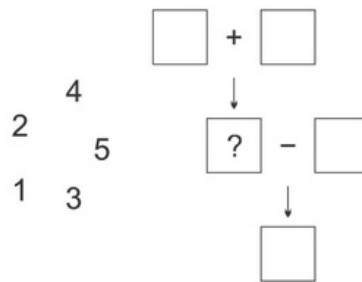


12. Five square cards are stacked on a table, as shown. The cards are removed one by one from the top of the stack. In what order are the cards removed?



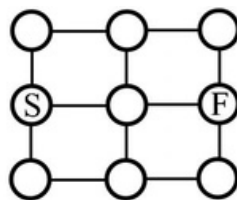
- (A) 5-2-3-1-4 (B) 5-2-3-4-1 (C) 4-5-2-3-1 (D) 5-3-2-1-4 (E) 1-2-3-4-5

13. Place each of the numbers 1, 2, 3, 4, 5 into one box so that everything is correct. Which number goes into the box marked with question mark?



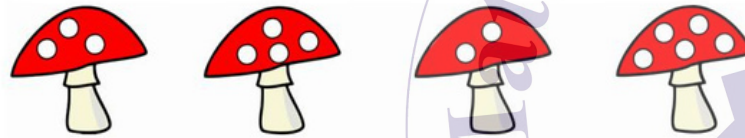
- (A) 1 (B) 2 (C) 3 (D) 4 (E) 5

14. The Kangaroo jumps from circle S along the line to the next circle in one jump. It is not allowed to jump into any circle more than once. In how many different ways, by taking only 4 jumps, can the Kangaroo reach circle F?



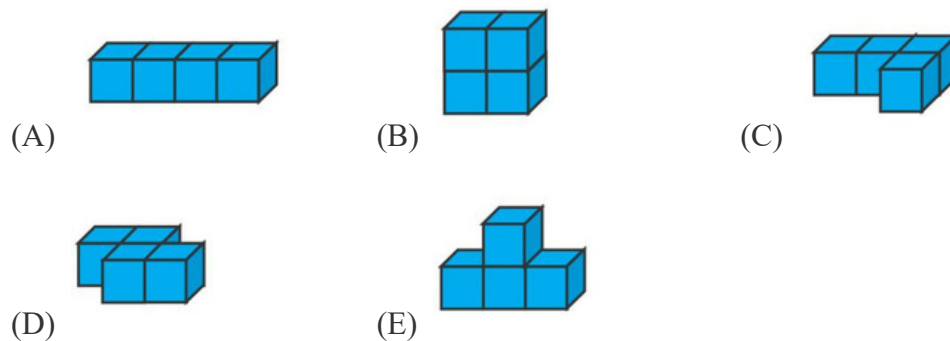
- (A) 3 (B) 4 (C) 5 (D) 6 (E) 7

15. The number of frogs that can fit under a mushroom is equal to the number of dots on the mushroom. The figure below shows one side of each mushroom. The number of dots on the other side is the same. If 30 frogs are seeking shelter from the rain, how many frogs will get wet?



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

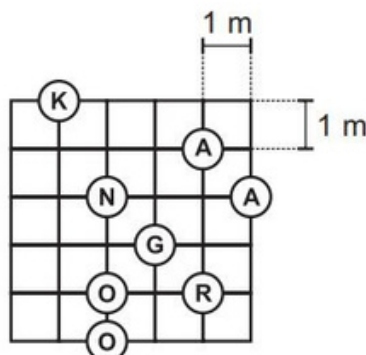
16. Each of the shapes shown is made by glueing together four cubes of the same size. The shapes are to be painted. Which shape has the smallest area to be painted?



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

Fill-in-the-blank Questions

17. Walking from K to O along the lines pick up the letters KANGAROO in the correct order. What is the length of the shortest walk in meters?



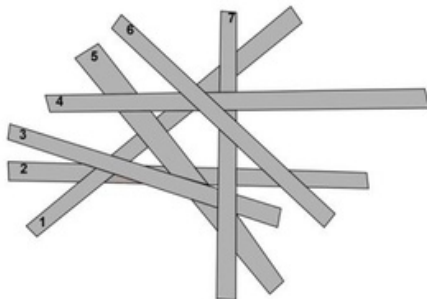
18. Each of the 4 keys fits one of the 4 padlocks. The numbers on the keys refer to the letters on the padlocks. What is written on the last padlock?



19. The cost of 1 ice-cream is 1 Euro (€). There is a promotion so you can buy 6 ice-creams for 5 Euros. How many ice-creams at most could you buy with 36 Euros?

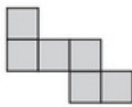


20. Seven sticks lie on top of each other. Stick 2 is at the bottom. Stick 6 is at the top. Which stick is in the middle?

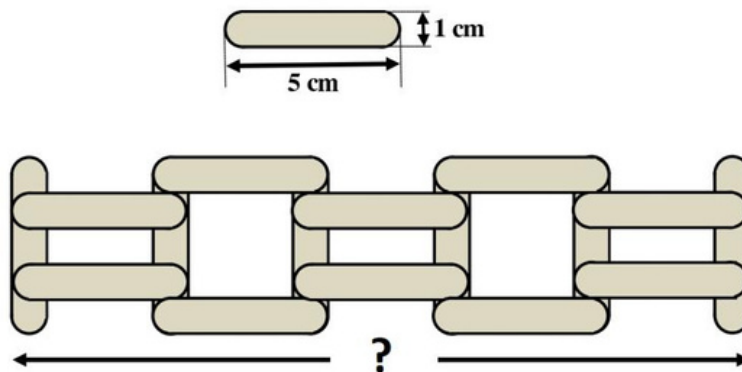


21. A ship was attacked by pirates. One by one they were climbing a rope to get to the ship. The pirate captain was in the middle and he was also the eighth one from the beginning. How many pirates were on the rope?

22. Amy used six equal small squares to build the figure. What is the least number of equal small squares she should add to the picture in order to obtain a larger square?



23. A student had some sticks of length 5 cm and width 1 cm. Using the sticks he constructed the fence below. What is the length of the fence, in cm?



24. To get the product of $2 \times 3 \times 15$, Bill has to press the keys of his calculator seven times. Bill wants to multiply all numbers from 3 to 21, using his calculator. How many times will he press the keys of his calculator?

$$\boxed{2} \boxed{\times} \boxed{3} \boxed{\times} \boxed{15} \boxed{=}$$