Benjamin Level: Class (5 & 6)

Max Time: 2 Hours

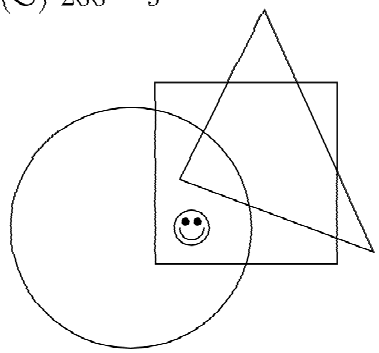
3-Point Problems

1. Among these numbers, which is even?

(**A**) 2009 (**B**) $2+0+0+9$ (**C**) $200-9$

(**D**) 200×9

2. Where is the smiley?



(**A**) In the circle and the triangle, but not the square.

(**B**) In the circle and the square, but not the triangle.

(**C**) In the triangle and the square, but not the circle.

(**D**) In the circle, but not in the square or the triangle

3. The smallest number of digits to be erased in the number 12323314 in order to get a number that reads identically from left to right and from right to left, is equal to

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

4. There are three boxes: white, red and green. One of them contains a bar of chocolate, the second contains an apple, and the third is empty. Find the chocolate, if it is known, that the chocolate is either in the white or in the red box, and the apple is neither in the white nor in the green box.

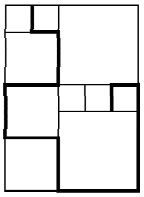
(**A**) white (**B**) red (**C**) green

(**D**) impossible to determine

5. A bridge is built across the river. The river is 120 meters wide. One quarter of the bridge is over the left river bank and one quarter of the bridge is over the right river bank. How long is the bridge?

(**A**) 150 m (**B**) 180 m (**C**) 210 m (**D**) 240 m

6. There are squares of three different sizes at the picture. The side of the smallest one is 20 cm long. What is the length of the marked bent line?



(**A**) 380 cm (**B**) 400 cm (**C**) 420 cm (**D**) 440 cm

7. There are cats and dogs in the room. The number of cats' paws is twice the number of dogs' noses. Then the number of cats is

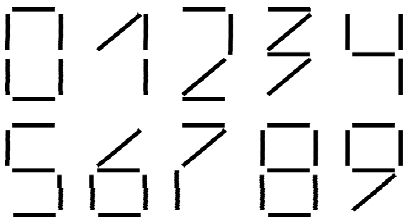
(**A**) twice the number of dogs

(**B**) equal to the number of dogs

(**C**) half the number of dogs

(**D**) $\frac{1}{4}$ of the number of dogs

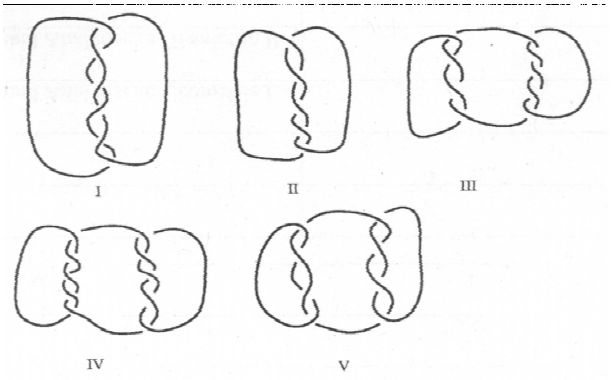
8. We use identical small sticks to form digits, as shown on the right. Given a number, by the *weight* of it we mean the number of sticks needed to compose it. What is the weight of the heaviest 2-digit number?



(**A**) 10 (**B**) 11 (**C**) 12 (**D**) 14

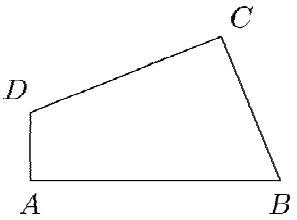
4-Point Problems

9. Which of the following links consist of more than one piece of rope?



(**A**) I, III, IV and V
(**B**) III, IV and V
(**C**) I, III and V
(**D**) all of them

10. The quadrilateral $ABCD$ has sides $AB = 11$, $BC = 7$, $CD = 9$ and $DA = 3$ and it has right angles in A and C. What is the area of this quadrilateral?

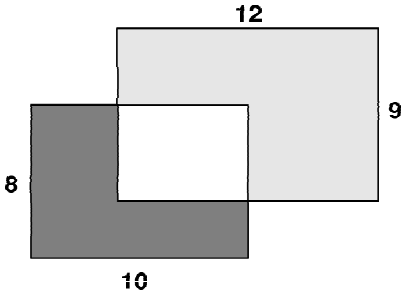


(**A**) 30 (**B**) 44 (**C**) 48 (**D**) 60

11. There are 39 boys and 23 girls in the singing group. Every week 6 more boys and 8 more girls join the singing group. After a few weeks there will be the same number of boys and girls in the singing group. How many boys and girls will be then in the singing group?

(**A**) 164 (**B**) 174 (**C**) 184 (**D**) 194

12. Two rectangles of 8×10 and 9×12 partly cover each other. The dark grey area is 37. What is the light grey area?



(**A**) 60 (**B**) 62 (**C**) 64 (**D**) 65

13. Eight cards numbered 1 to 8 are put in the boxes A and B, so that both sums of the card numbers in each box are equal. If there are only 3 cards in the box A, then you can be sure that

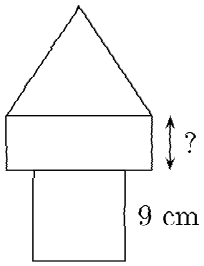
(**A**) three cards in box B are odd numbered

(**B**) four cards in box B are even numbered

(**C**) card number one is not in box B

(**D**) card number two is in box B

14. "Tower" at the picture is formed of three structures – square, rectangle and equilateral triangle. Perimeter of all three structures is the same. Side of the square is 9 cm long. What is the length of marked side of the rectangle?



(**A**) 4 cm (**B**) 5 cm (**C**) 6 cm (**D**) 8 cm

15. We want to fill a $30 \times 30 \times 50$ box by rigid cubes all of the same size. Which is the minimum number of cubes that allows us to do that?

(**A**) 15 (**B**) 30 (**C**) 45 (**D**) 75

16. Today is Sunday. Francis begins to read a book with 290 pages. He reads 4 pages each day, except on Sundays, when he always read 25 pages, without jumping any day. How many days it took him to read the book?

(**A**) 46 (**B**) 40 (**C**) 35 (**D**) 41

5-Point Problems

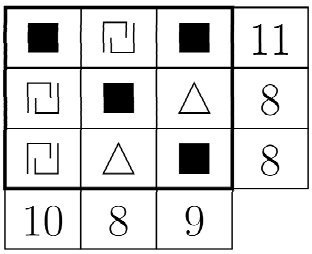
17. There are 4 statements about the positive integer A:
A is divisible by 5
A is divisible by 11
A is divisible by 55
A is less than 10
It is known that two of these statements are true, and the other two are false. Then A is equal to:

(**A**) 0 (**B**) 5 (**C**) 11 (**D**) 55

18. The rooms of a hotel are numbered with three digits. The first indicates the floor and the following two the number of the room. For example, 125 indicates room 25 of the first floor. If the hotel has a total of 5 floors numbered from 1 to 5 with 35 rooms per floor numbered from 101 to 135 on the first floor, how many times will the digit 2 be used to number all the rooms?

(**A**) 60 (**B**) 95 (**C**) 100 (**D**) 105

19. The total of each row and column is given. What is the value of ■ + 卐 − △?



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

20. In the land of Funnyfeet, everybody has the left foot one or two sizes bigger than the right foot. Nevertheless shoes are sold in pairs of the same size. To save, a group of friends decide to buy shoes together: each one takes two shoes, and a shoe of size 36 and one of size 45 are left over. We can say that the minimum number of people in the group is

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