



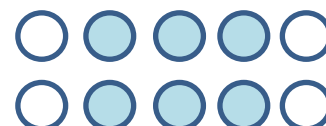
Green Level

1. **(5 credits)** There were several raspberries on the plate. Paddington Bear ate half of all raspberries and another 17 raspberries and threw one remaining spoiled raspberry into the trash can. How many raspberries did Paddington eat?

Понедельник Monday	Вторник Tuesday	Среда Wednesday	Четверг Thursday	Пятница Friday	Суббота Saturday	Воскресенье Sunday
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	1	2	3	4	5

2. **(5 credits)** Mary Poppins has 5 unused vacation days. Weekends and holidays are marked red (in the frame) on Fig. 1. What is the maximum number of subsequent calendar days of rest she may have?

3. **(7 credits)** Each Martian has five hands. A kindergarten group of Martian children lines up in pairs for a walk (see Fig. 2). According to the rules of the kindergarten, each child has to take the hand of each his neighbour on the left, on the right, behind or in front of him or her.



How many hands of children of that group remain free?

Fig. 2

4. **(7 credits)** Artemis Fowl wrote all consecutive numbers from 1 to 50 in a row without intervals. Then he found five most frequent digits in this sequence and crossed out all such digits. What digit stands in the new sequence (A) in the first place?

5. **(10 credits)** Watson told Holmes the double-digit number of his apartment. Holmes discovered that this number multiplied by 3 gives a two-digit number. Then Holmes subtracted 3 from the original number, divided the difference by 3 and finally got a two-digit number as well. What number did Watson tell Holmes?

6. **(10 credits)** Each of little students of the school on the small island of Komodo got 4 cards containing syllables KO, MO or DO. The cards were distributed so that 13 students can make up the word DODO, 15 students can make up the word KOKO, and 17 students can make up the word MOMO. Moreover, 45 students can make up the word KOMODO using their cards. What is the total number of the students?

7. **(13 credits)** Sons of Baron Munchausen always lie, sons of Baron Porthos always tell the truth. Sons of both Barons live in the same tavern. Three of them met in the hall.

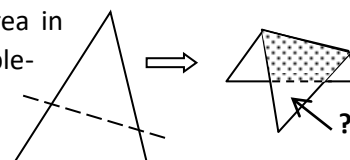
The first one said, 'I am the only such Baron here.'

The second one said, 'Yes, he is the only such Baron here.'

The third one said, 'Yes, there is only one Munchausen in this hall.'

Whose sons are they?

8. **(13 credits)** A line drawn across a paper triangle divided its area in half. Then the triangle was folded along this line so that the area of the "double-layer part" (marked gray in Fig. 3) was equal to the area of the "single-layer part" and was 12 cm² smaller than the area of the original triangle. Find the area of the little triangle below the dashed line.



9. **(15 credits)** The game "Liar's Draughts" has the following rules. Players put dark or light pieces on the board in turns. If a player puts a light piece, he has to tell the truth, and if he puts a dark piece, he has to lie. There is 1 piece on the board. Pinocchio put one more piece and said, 'Now the number of dark pieces on the board exceeds the number of light ones.' What is the colour of the first piece?

10. **(15 credits)** Kai divided a large rectangle ice plate into 9 different small rectangles with two segments parallel to one side of the plate and two segments parallel to the other side (see Fig. 4). Gerda wants to know the sum of the perimeters of all 9 small rectangles and may ask Kai about the perimeter of any small rectangle in a single question. What is the minimum number of questions giving her the possibility to know the sum?

