



White Level

1.(5 credits) Kostya and Seryozha are twins, and they have a brother: his name is Vitya and he is exactly 4 years younger than his brothers. On the anniversary of their birth, their mom baked a birthday cake and placed 35 candles on it (35 is the sum of the ages of all the boys). How old is Vitya?

2.(5 credits) The kindergarten attended by Kostya and Seryozha is guarded around the clock by six security guards. Two security guards patrol its territory at the same time. How many hours per week does each security guard work if their patrolling time is the same?

3.(8 credits) Five girls, Inna, Kristina, Alisa, Oksana and Liza, who attend the kindergarten together with Kostya and Serezha, were born at the same year in one of the following days: September 12, July 15, January 24, May 7, June 12. Inna and Christina were born in the summer, Alisa has an odd-numbered birthday, and Oksana is three months younger than Inna. What day was Liza born on?

4.(8 credits) Seryozha and Kostya help their grandma to pick apples. Seryozha picks 2 kg of apples per hour, and Kostya picks 3 kg. How much time will it take for them to pick 7 kg of apples if they work together?

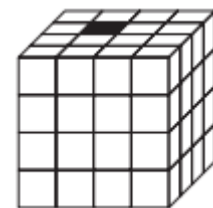
5.(10 credits) Kostya and Seryozha decided to participate in a race. Vitya, who supported them at the start point, asked the brothers about their places. Seryozha said, 'The number of those who beat me is three times less than the number of runners beaten by me.' Kostya said, 'The number of those who beat me is six times less than the number of runners beaten by me; 2 runners came past me, and Seryozha finished after them.' How many runners participated in the race?

6.(10 credits) Kostya and Seryozha weighed their toys. They put a dinosaur, a car and a pyramid on the scales, and Vitya dropped the pyramid from the scales, and the scales showed 500 grams. When the boys tried to weigh those items once more, Vitya dropped the car from the scales, and the scales showed 250 grams. When the toys were weighed for the third time, without a dinosaur, the scales showed 350 grams. How much did all three toys weigh together?

7.(12 credits) Seryozha arranged five 1×1 squares in a line. What is the minimum number of squares that should be attached to that line ('attached' means that every new square has at least one common side with the line of squares) to double the perimeter of the resulting figure in comparison with the perimeter of the original figure?

8.(12 credits) Kostya and Seryozha's father jetted off on a business trip to Toronto. His aircraft left Moscow at 07.25PM and arrived to Toronto on the next day at 11:10AM (the time of departure and the time of arrival are local). When it was 2 o'clock in the morning in Moscow, it was 7 o'clock in the previous evening in Toronto. How long did the flight last?

9.(15 credits) Each face of a $4 \times 4 \times 4$ cube is split into sixteen 1×1 squares. One square is painted black, and the rest are white (see fig.). Kostya paints black all squares having at least one common side with a black square in one turn. How many squares will be painted black after three Kostya's moves?



10. (15 credits) Playing in the after-school childcare club, Kostya and Seryozha threw their toy blocks (red, green and blue) around. The number of the red blocks is 5, the number of the green blocks is three times more than the number of the red ones, and the number of the blue blocks is two times less than the total number of the red and green blocks. What is the minimum number of the blocks to be picked by the boys if they have to get at least one cube of each color?