

Junior Level Relay Round 1A

R1-A A three-digit number is called nice if it coincides with any of the numbers 135, 246 and 987 in exactly one position (for example 147 and 285 are nice but 239 and 487 are not). How many three-digit numbers are nice?

Junior Level Relay Round 1B

R1-B $T = \text{TNYWR}$ (The Number You Will Receive). Rectangle $ABCD$ on the picture is divided into 9 smaller rectangles. The areas of some of the rectangles are given. Find the area of the rectangle $ABCD$.

3	6	3
		2
	T	

Junior Level Relay Round 2A

R2-A In Bulgaria we have coins of 1, 2, 5, 10, 20 and 50 stotinki. What is the minimum number of coins in a set A such that any amount from 1 to 100 stotinki can be expressed as several coins from A ?

Junior Level Relay Round 2B

R2-B $T = \text{TNYWR}$ (The Number You Will Receive). Points M and N are midpoints of the sides BC and CD of quadrilateral $ABCD$. If $S_{ABD} = T \text{ cm}^2$ and $S_{BCD} = 2T \text{ cm}^2$, find S_{AMN} .

Junior Level Relay Round 3A

R3-A Eight teams played in a football tournament. Every two teams played one game against each other (win 3 points, draw 1 point, lost 0 points). Total number of points gained by the 8 teams equals 79. How many games ended by draws?

Junior Level Relay Round 3B

R3-B $T = \text{TNYWR}$ (The Number You Will Receive). The number $\overline{a2018b}$ is divisible by 11 and the number \overline{aT} is divisible by 3. Find the maximum value of $a + b$.