

**Logic Masters 2019**  
**Round 6 – Tetrominoes**

**Time: 45 minutes**

6.1 LITS .....	10 points
6.2 Touching Tetrominoes .....	10 points
6.3 Tetroscope .....	15 points
6.4 Easy as Tetromino .....	40 points
6.5 Tetromino Coral .....	55 points
6.6 Tetromino Japanese Sums .....	60 points
6.7 Tetromino Yajilin .....	65 points

---

Total .....255 points

---

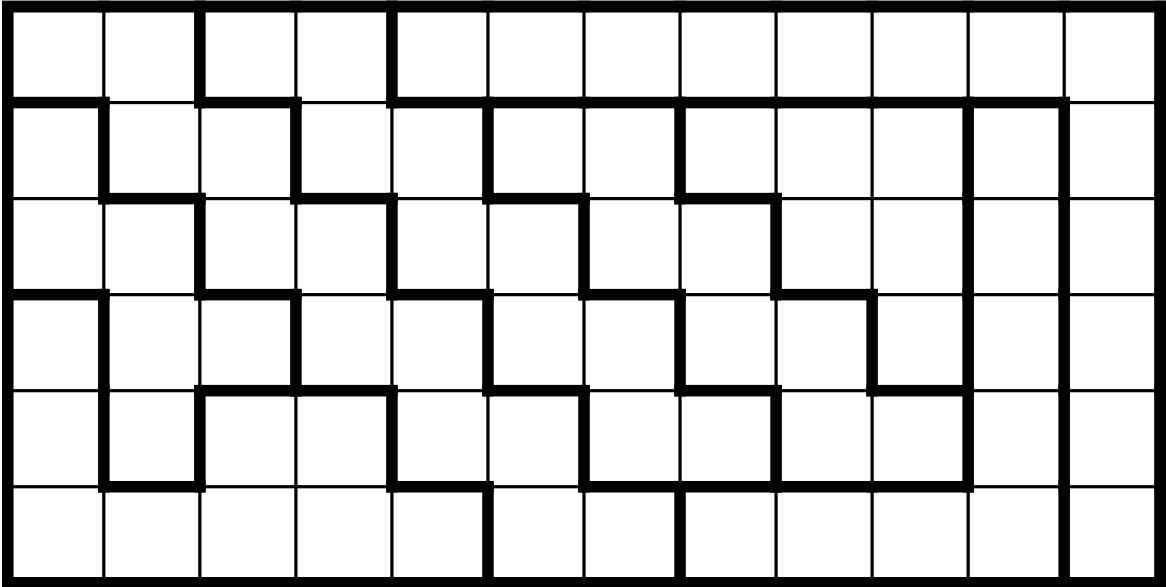
Bonus for every 30 seconds remaining .....2 points

PUNKTE

6.1 LITS

10 Punkte

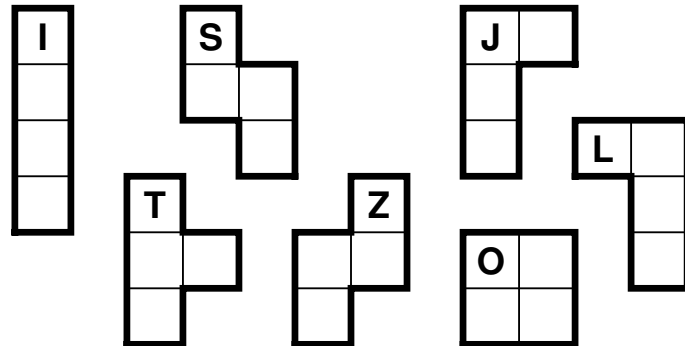
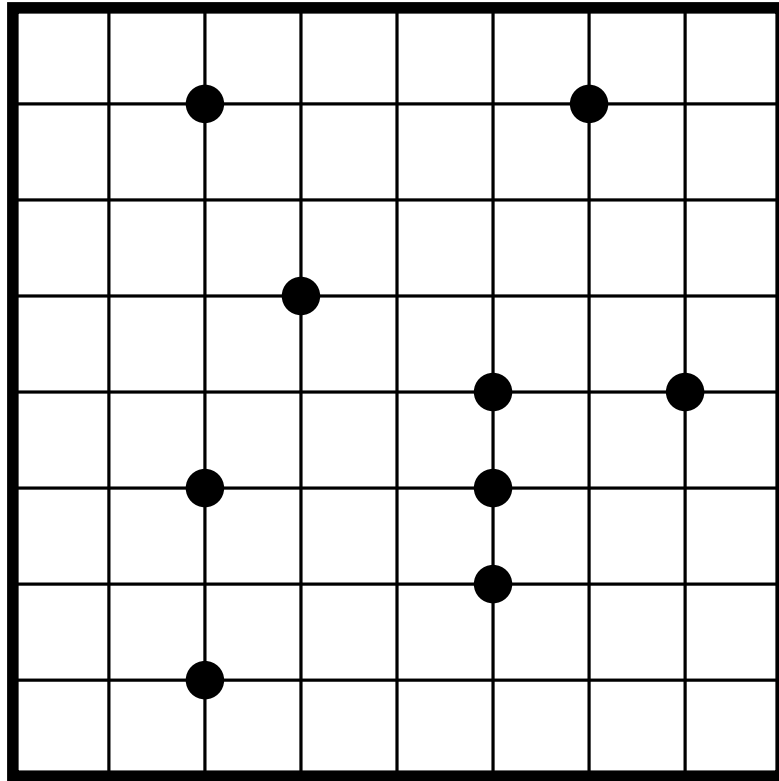
Blacken some cells such that in every region there are four connected black cells, forming a tetromino. All black cells are connected but no 2x2 area is completely black. Equal tetrominoes do not share an edge. Mirrored or rotated tetrominoes are considered equal.



## 6.2 Touching Tetrominoes

10 Punkte

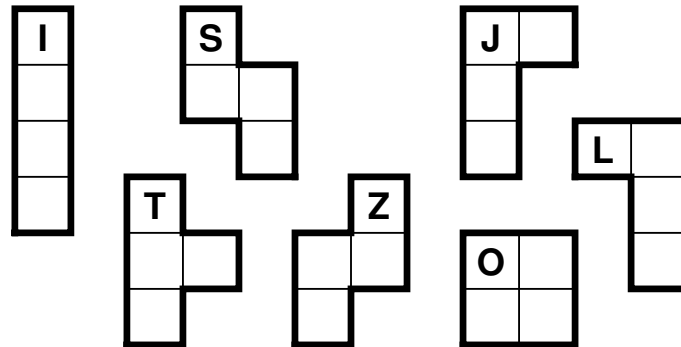
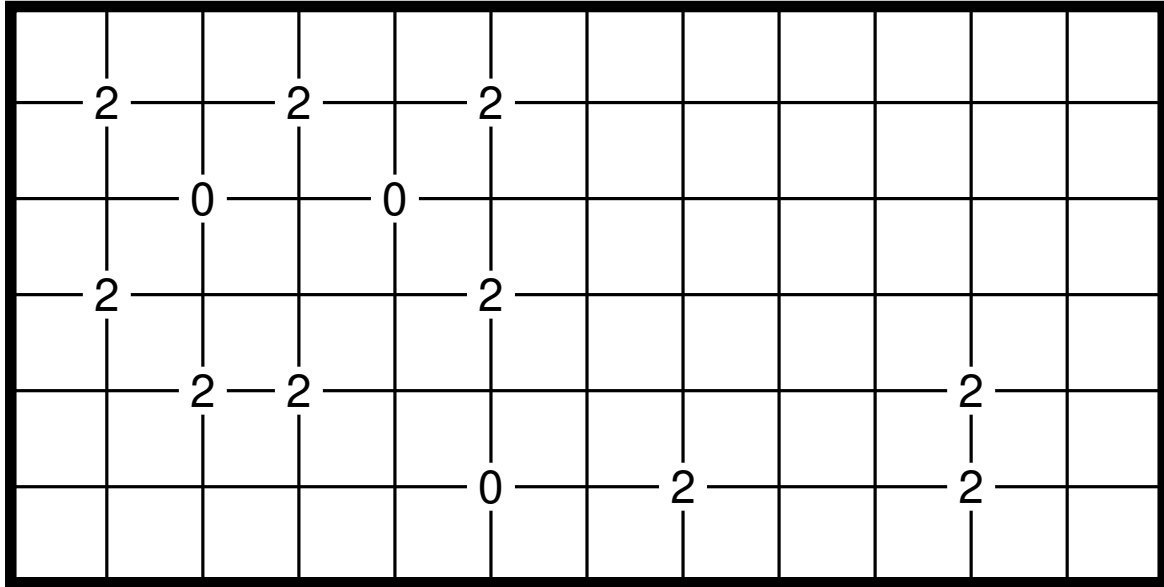
Place the given tetrominoes into the grid. The tetrominoes may be rotated but not mirrored. No two tetrominoes may share an edge. All vertices where two tetrominoes meet each other diagonally are marked with a black circle.



### 6.3 Tetroscope

15 Punkte

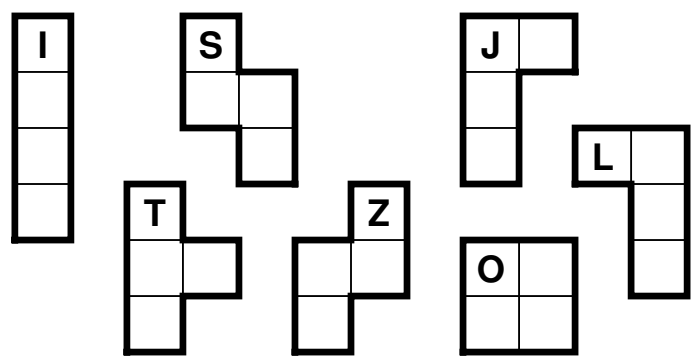
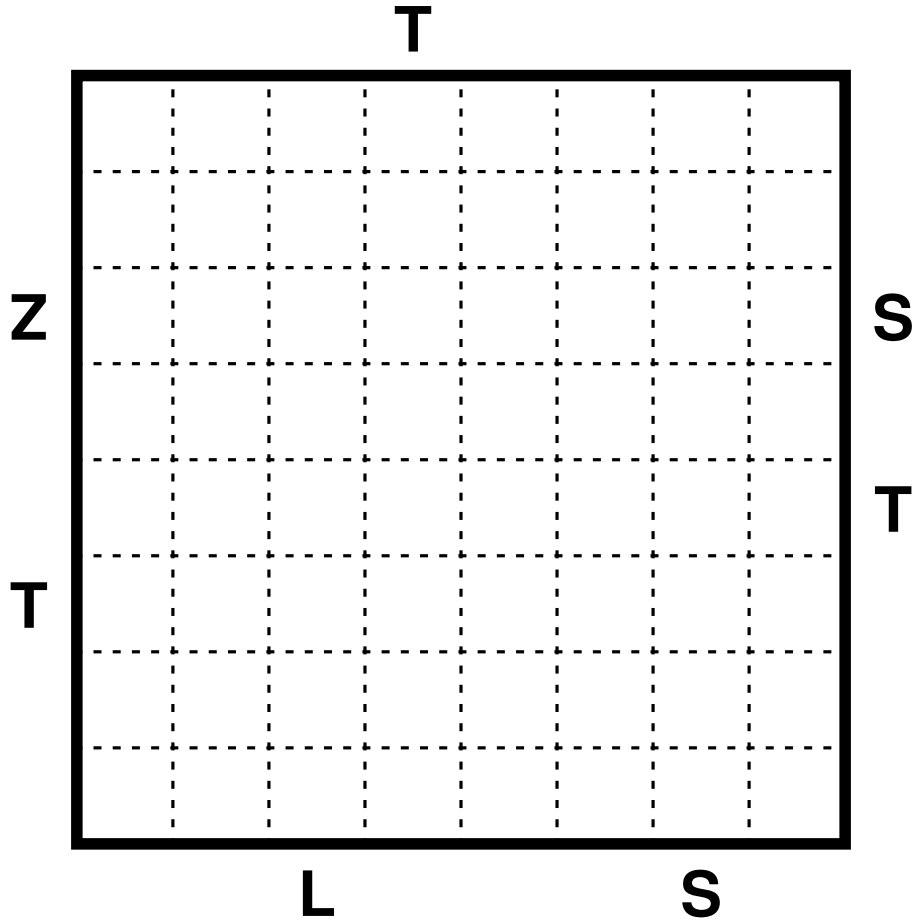
Place the given tetrominoes into the diagram. Tetrominoes do not touch each other, not even diagonally. They may be rotated, but not reflected. Numbers indicate how many of the adjacent cells are occupied by tetrominoes.



# 6.4 Easy as Tetromino

40 Punkte

Dissect the grid into tetrominoes such that equal tetrominoes do not share an edge. Rotated tetrominoes are treated as equal. However mirrored tetrominoes are not considered equal. The outside clues indicate the first tetromino in the respective row or column as seen from the respective direction.



# 6.5 Tetromino Coral

55 Punkte

Place the given tetrominoes into the grid to form a coral. The tetrominoes may be rotated but not mirrored. A coral consists of connected cells, does not touch itself, not even diagonally, and does not contain 2x2 regions. The outside numbers indicate the lengths of all sequences of coral cells within the respective row or column. The numbers are not necessarily in the correct order. Different sequences are separated by at least one empty cell.

			1				
	1	1	2		1	1	
	2	1	2		2	1	2

2	1
---	---

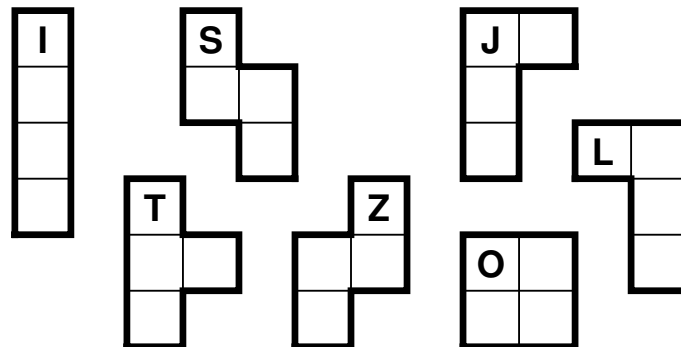
I	S	L
T	Z	J

## 6.6 Tetromino Japanese Sums

60 Punkte

Place the given tetrominoes into the grid. The tetrominoes may be rotated but not mirrored. They cannot touch each other, not even diagonally. Fill the remaining cells with numbers from 1 to 9 such that no number repeats in any row or column. The outside numbers indicate the sum of numbers in sequences of adjacent numbers within the respective row or column in the correct order. Single digits are also mentioned here. Different sequences are separated by at least one empty cell. Numbers may be replaced with question marks (?). Each question mark can represent a one- or multi-digit number.

				10						
		17	?	6					1	
		15	1	2	33	30	4		5	14
		7	2	4	8	14	?	31	32	22
3	25	5								
	2	23								
	19	2								
	17	8								
?	2	24								
	7	13								
	?	10								



# 6.7 Tetromino Yajilin

65 Punkte

Place all the given tetrominoes into the grid such that every arrow points at the indicated tetromino. This tetromino is not necessarily the first or the only one the arrow points at. The tetrominoes may be rotated but not mirrored. No two tetrominoes may share an edge. There may be tetrominoes no arrow points at. Draw a loop through all remaining empty cells connecting the centers of horizontally or vertically adjacent cells. The loop uses each of the cells exactly once and does not intersect itself.

