	0	1	2	3
0	1 [0][0]	2 [0][1]	3 [0] [2]	4 [0][3]
1	5 [1] [0]	6 [1] [1]	7 [1][2]	8 [1] [3]
2	9 [2] [0]	10 [2] [1]	11 [2] [2]	12 [2] [3]