```
# %attach /home/sebastien/Nutstore Files/SAGE/SimpleIntegralFusionRings.sage
# Classification of all the non-pointed simple integral 1-Frobenius fusion rings, under the following bounds:
\# Rank\leqr and FPdim\leqd with (r,d) = (4, 10^{15}), (5, 10^{7}), (6, 10^{6}), (7, 10^{5}), (8, 20000), (9, 10000), (10, 5000), (11, 3000), (12,1000).
#r5d60t[[1, 1], [3, 2], [4, 1], [5, 1]]
#Finite simple group A5
]=062
 [[1,0,0,0,0],[0,1,0,0,0],[0,0,1,0,0],[0,0,0,1,0],[0,0,0,0,1]],
 [[0,1,0,0,0],[1,1,0,0,1],[0,0,0,1,1],[0,0,1,1,1],[0,1,1,1]],
 \hbox{\tt [[0,0,1,0,0],[0,0,0,1,1],[1,0,1,0,1],[0,1,0,1,1],[0,1,1,1,1]],}
 [[0,0,0,1,0],[0,0,1,1,1],[0,1,0,1,1],[1,1,1,1,1],[0,1,1,1,2]],
 [[0,0,0,0,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,2],[1,1,1,2,2]]
11
#r6d168t[[1, 1], [3, 2], [6, 1], [7, 1], [8, 1]]
#Finite simple group PSL(2,7)
[[1,0,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0],[0,0,0,1,0,0],[0,0,0,0,1,0],[0,0,0,0,1,0]],
[[0,1,0,0,0,0],[0,0,1,1,0,0],[1,0,0,0,0,1],[0,0,1,0,1,1],[0,0,0,1,1,1],[0,1,0,1,1,1]],
 [[0,0,1,0,0,0],[1,0,0,0,0,1],[0,1,0,1,0,0],[0,1,0,0,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1]],
 [[0,0,0,1,0,0],[0,0,1,0,1,1],[0,1,0,0,1,1],[1,0,0,2,1,2],[0,1,1,1,2,2],[0,1,1,2,2,2]],
  [ [0,0,0,0,1,0], [0,0,0,1,1,1], [0,0,0,1,1,1], [0,1,1,1,2,2], [1,1,1,2,2,2], [0,1,1,2,2,3] ], \\
 [[0,0,0,0,0,1],[0,1,0,1,1,1],[0,0,1,1,1,1],[0,1,1,2,2,2],[0,1,1,2,2,3],[1,1,1,2,3,3]]
#r7d210t[[1, 1], [5, 3], [6, 1], [7, 2]]
  [ [0,1,0,0,0,0,0], [1,1,0,1,0,1,1], [0,0,1,0,1,1,1], [0,1,0,0,1,1,1], [0,0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,
 [[0,0,1,0,0,0,0],[0,0,1,0,1,1,1],[1,1,1,0,0,1,1],[0,0,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1]],
 [[0,0,0,1,0,0,0],[0,1,0,0,1,1,1],[0,0,0,1,1,1,1],[1,0,1,1,0,1,1],[0,1,1,0,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1]],
  [ [0,0,0,0,1,0,0], [0,0,1,1,1,1,1], [0,1,0,1,1,1,1], [0,1,1,0,1,1,1], [1,1,1,1,1,1,1], [0,1,1,1,1,2,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0
  [[0,0,0,0,0,1,0],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,2,1],[1,1,1,1,2,0,3],[0,1,1,1,1,1,3,1]], \\
 [[0,0,0,0,0,0,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
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 [[0,0,1,0,0,0,0],[0,0,1,0,1,1,1],[1,1,1,0,0,1,1],[0,0,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1]],
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 [[0,0,0,0,1,0,0],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,0,1,1,1],[1,1,1,1,1,1,1],[0,1,1,1,1,1,2,1],[0,1,1,1,1,1,1]]
  [[0,0,0,0,0,1,0],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,2,1],[1,1,1,1,2,1],[0,1,1,1,1,2,2]], \\
 [[0,0,0,0,0,0,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
#r7d360t[[1,1],[5,2],[8,2],[9,1],[10,1]]
  [[1,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,1,0,0,0],[0,0,0,0,0,1,0,0],[0,0,0,0,0,1,0],[0,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
  [[0,1,0,0,0,0,0],[1,1,0,0,0,1,1],[0,0,0,1,1,1,0],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
  [[0,0,1,0,0,0,0],[0,0,0,1,1,1,0],[1,0,1,0,0,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
 [[0,0,0,1,0,0,0],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[1,1,1,1,2,1,2],[0,1,1,2,0,2,2],[0,1,1,1,2,2,2],[0,1,1,2,2,2,2]],
 [[0,0,0,0,1,0,0],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,2,0,2,2],[1,1,1,0,3,1,2],[0,1,1,2,1,2,2],[0,1,1,2,2,2,2]],
  [[0,0,0,0,0,1,0],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2],[0,1,1,2,1,2,2],[1,1,1,2,2,2,2],[0,1,1,2,2,2,3]], \\
 [[0,0,0,0,0,0,1],[0,1,0,1,1,1,2],[0,0,1,1,1,1,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2]]
 #Finite simple group A6
 \begin{bmatrix} [1,0,0,0,0,0,0], [0,1,0,0,0,0,0], [0,0,1,0,0,0,0], [0,0,0,1,0,0,0], [0,0,0,0,1,0,0], [0,0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [1,1,0,0,0,0], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1,1], [0,1,0,1,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,
 [[0,0,1,0,0,0,0],[0,0,0,1,1,1,0],[1,0,1,0,0,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1]]
 [[0,0,0,1,0,0,0],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[1,1,1,2,1,1,2],[0,1,1,1,2,2],[0,1,1,1,2,2,2],[0,1,1,1,2,2,2]],
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[[0,0,0,0,0,1,0],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2],[0,1,1,2,1,2,2],[1,1,1,2,2,2,2],[0,1,1,2,2,2,3]],
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 [[0,1,0,0,0,0,0],[1,0,0,1,2,2,3],[0,0,1,1,2,2,3],[0,1,1,1,2,2,3],[0,2,2,2,4,4,6],[0,2,2,2,4,4,6],[0,3,3,3,6,6,7]],
```

```
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[[0,0,0,1,0,0,0],[0,1,1,1,2,2,3],[0,1,1,2,2,2,3],[1,1,2,2,0,4,3],[0,2,2,0,9,2,6],[0,2,2,4,2,7,6],[0,3,3,3,6,6,9]],
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[[0,0,0,0,0,0,1],[0,3,3,3,6,6,7],[0,3,3,3,6,6,8],[0,3,3,3,6,6,9],[0,6,6,6,12,12,18],[0,6,6,6,12,12,18],[1,7,8,9,18,18,22]]
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 [[0,1,0,0,0,0,0],[1,0,0,1,2,2,3],[0,0,1,1,2,2,3],[0,1,1,1,2,2,3],[0,2,2,2,4,4,6],[0,2,2,2,4,4,6],[0,3,3,3,6,6,7]], \\
 [[0,0,0,0,1,0,0],[0,2,2,2,4,4,6],[0,2,2,2,5,4,6],[0,2,2,0,7,4,6],[1,4,5,7,7,11,12],[0,4,4,4,11,9,12],[0,6,6,6,12,12,18]], 
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[[0,0,0,0,0,0,1],[0,3,3,3,6,6,7],[0,3,3,3,6,6,8],[0,3,3,3,6,6,9],[0,6,6,6,12,12,18],[0,6,6,6,12,12,18],[1,7,8,9,18,18,22]]
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[[0,0,0,0,0,1,0],[0,2,2,2,4,4,6],[0,2,2,2,4,5,6],[0,2,2,4,6,3,6],[0,4,4,6,11,8,12],[1,4,5,3,8,12,12],[0,6,6,6,12,12,18]],
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 \begin{bmatrix} [0,1,0,0,0,0,0], [1,0,0,1,2,2,3], [0,0,1,1,2,2,3], [0,1,1,1,2,2,3], [0,2,2,2,4,4,6], [0,2,2,2,4,4,6], [0,3,3,3,6,6,7]], \\ [[0,0,1,0,0,0,0], [0,0,1,1,2,2,3], [1,1,1,1,2,2,3], [0,1,1,2,2,2,3], [0,2,2,2,4,4,6], [0,2,2,2,4,5,6], [0,3,3,3,6,6,8]], \\ [[0,0,1,0,0,0,0], [0,0,1,1,2,2,3], [0,1,1,2,2,3], [0,1,1,2,2,2,3], [0,2,2,2,2,4,4,6], [0,2,2,2,4,5,6], [0,3,3,3,6,6,8]], \\ [[0,0,1,0,0,0,0], [0,0,1,1,2,2,3], [0,0,1,1,2,2,3], [0,1,1,2,2,3], [0,2,2,2,4,4,6], [0,2,2,2,4,5,6], [0,3,3,3,6,6,8]], \\ [[0,0,1,0,0,0,0], [0,0,1,1,2,2,3], [0,1,1,2,2,3], [0,1,1,2,2,2,3], [0,2,2,2,2,4,4,6], [0,2,2,2,2,4,5,6], [0,3,3,3,6,6,8]], \\ [[0,0,1,0,0,0], [0,0,1,1,2,2,3], [0,1,1,2,2,3], [0,1,1,2,2,2,3], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,5,6], [0,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,2,4,4,6], [0,2,2,2,2,4,4,6], [0,2,2,2,2,4,4,6], [0,2,2,2,2,4,4,6], [0,2,2,2,2,4,4,6], [0,2,2,2,2,2,4], [0,2,2,2,2,4], [0,2,2,2,2,4], [0,2,2,2,2,4], [0,2,2,2,2,2], [0,2,2,2,2,2,4], [0,2,2,2,2,2], [0,2,2,2,2,2], [0,2,2,2,2], [0,2,2,2,2], [0,2,2,2,2], [0,2,2,2,2], [0,2,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2,2], [0,2,2], [0,2,2,2], [0,2,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,2], [0,2,
 [[0,0,0,1,0,0,0],[0,1,1,1,2,2,3],[0,1,1,2,2,2,3],[1,1,2,2,0,4,3],[0,2,2,0,3,8,6],[0,2,2,4,8,1,6],[0,3,3,3,6,6,9]], \\
[[0,0,0,0,1,0,0],[0,2,2,2,4,4,6],[0,2,2,2,5,4,6],[0,2,2,0,3,8,6],[1,4,5,3,5,15,12],[0,4,4,8,15,3,12],[0,6,6,6,12,12,18]], [[0,0,0,0,0,1,0],[0,2,2,2,4,4,6],[0,2,2,2,4,5,6],[0,2,2,4,8,1,6],[0,4,4,8,15,3,12],[1,4,5,1,3,18,12],[0,6,6,6,12,12,18]],
[[0,0,0,0,0,0,1],[0,3,3,3,6,6,7],[0,3,3,3,6,6,8],[0,3,3,3,6,6,9],[0,6,6,6,12,12,18],[0,6,6,6,12,12,18],[1,7,8,9,18,18,22]]
#r8d660t[[1, 1], [5, 2], [10, 2], [11, 1], [12, 2]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0], [0,1,0,0,0,0,0], [0,0,1,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0,0], [1,0,0,0], [1,0,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0,0], [1,0,0], [1,0,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1,0], [1
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 [[0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,3,2],[1,1,1,2,2,2,3,1,4],[0,1,1,2,2,2,2,4,2]], [0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2],[0,1,2,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0
[[0,0,0,0,0,0,0,1],[0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1]
],[
#Finite simple group PSL(2.11)
[[1,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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```

```
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#r8d990t[[1, 1], [9, 1], [10, 1], [11, 4], [18, 1]]
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 [[0,0,0,0,0,0,0,1],[0,0,2,2,2,2,2,3],[0,2,2,2,2,2,3],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,2,4],[0,2,2,2,2,2,2,2,2,2,2],[0,2,2,2,2,2,2,2,2],[0,2,2,2,2,2,2,2,2],[0,2,2,2,2,2,2,2,2],[0,2,2,2,2,2,2],[0,2,2,2,2,2,2],[0,2,2,2,2,2],[0,2,2,2,2,2,2],[0,2,2,2,2,2],[0,2,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[
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  [[0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1],[0,1,1,1,1,2],[0,1,1,1,2,1,2],[0,1,1,2,1,2,2],[0,1,1,2,1,1,2,2],[1,1,2,1,1,2,1,2],[0,1,1,2,2,1,1,2],[0,2,2,2,2,2,2,2,2]], \\ [[0,0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
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  [[0,0,0,0,0,0,1,0],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2,2],[0,1,1,2,2,2,0,2],[0,1,1,2,1,2],[0,1,1,2,2,1,1,2],[1,1,2,0,1,1,3,2],[0,2,2,2,2,2,2,2]], [0,1,1,2,1,2,1,2],[0,1,1,2,2,1,1,2],[0,1,1,2,2,1,1,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1
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1,[
  \left[ \left[ 0,0,1,0,0,0,0,0 \right], \left[ 0,0,1,1,1,1,1,2 \right], \left[ 1,1,1,1,1,1,2 \right], \left[ 0,1,1,2,1,1,2 \right], \left[ 0,1,1,1,2,1,2 \right], \left[ 0,1,1,1,1,2,1,2 \right], \left[ 0,1,1,1,1,2,2 \right], \left[ 0,2,2,2,2,2,2,2 \right] \right], \right] 
[[0,0,0,1,0,0,0],[0,1,1,1,1,1,1,1,2],[0,1,1,2,1,1,1,2],[1,1,2,1,1,1,2,2],[0,1,1,1,1,2,2,2],[0,1,1,1,2,1,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,1,2],[0,2,2,2,2,2,4]],
[[0,0,0,0,1,0,0,0],[0,1,1,1,1,1,1,2],[0,1,1,1,2,1,1,2],[0,1,1,1,2,2,2],[1,1,2,1,2],[0,1,1,2,1,1,2],[0,1,1,2,1,2],[0,2,2,2,2,2,2],[1,1,2,1,2],[0,1,1,2,1,1,2],[0,1,1,2,1,2],[0,2,2,2,2,2,2,2],[1,1,2,1,2],[0,1,1,2,1,1,2],[0,1,1,2,1,2],[0,2,2,2,2,2,2,2],[1,1,2,1,2],[0,1,1,2,1,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1
  [[0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1],[0,1,1,1,1,2],[0,1,1,1,2,1,2],[0,1,1,2,1,2,2],[0,1,1,2,1,1,2,2],[1,1,2,1,1,2],[0,1,1,2,2,1,1,2],[0,2,2,2,2,2,2,2,4]], 
  [[0,0,0,0,0,0,1,0],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2,2],[0,1,1,2,2,2,0,2],[0,1,1,2,1,2],[0,1,1,2,2,1,1,2],[1,1,2,0,1,1,3,2],[0,2,2,2,2,2,2,2]], [0,1,1,2,1,2,1,2],[0,1,1,2,2,1,1,2],[0,1,1,2,2,1,1,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2
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 [[0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1,2],[1,1,1,1,1,1,2],[0,1,1,2,1,1,1,2],[0,1,1,1,2,1,1,2],[0,1,1,1,1,1,2,1,2],[0,1,1,1,1,1,2,2],[0,2,2,2,2,2,2,2,3]], \\
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#r8d1260t[[1, 1], [6, 1], [7, 2], [10, 1], [15, 1], [20, 2]]
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 [ [0,0,1,0,0,0,0,0], [1,0,0,0,1,0,0,1], [0,0,0,1,1,1,0,0], [0,1,0,0,0,1,1,1], [0,1,1,0,0,1,1,1], [0,0,0,1,1,1,2,1], [0,1,0,1,1,0,1,2], [0,0,1,1,1,2,1,3] ], \\ [0,0,1,0,0,0,0,0], [1,0,0,0,1,0,0,1], [0,0,0,1,1,1,0,0], [0,1,0,0,0,1,1,1], [0,1,1,0,0,1,1,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2,1], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,2], [0,0,0,1,1,1,1,1,2], [0,0,0,1,1,1,1,1,2], [0,0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0
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 \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,0,1,1,1,0,1,1,1], [0,1,1,0,0,1,1,1], [0,1,0,0,1,1,1,1], [0,1,0,0,1,1,1,1], [0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1
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 \begin{bmatrix} [0,0,0,0,0,0,0,0], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1],
                                          # the one below is ch(PSL(2,8))
 [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0
 \begin{bmatrix} [0,1,0,0,0,0,0,0],[1,0,1,1,1,0,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
 \begin{bmatrix} [0,0,1,0,0,0,0,0],[0,1,1,0,0,1,1,1,1],[1,1,1,0,1,0,1,0,1,1,1],[0,0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
 [[0,0,0,1,0,0,0,0,0],[0,1,0,1,0,1,1,1],[0,0,0,1,1,1,1],[0,1,1,1,1],[1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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S1092=[[
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  [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0
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  \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,1,0,0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1],
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  \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,1,0,0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], 
  [[0,0,1,0,0,0,0,0,0],[0,0,0,1,1,1,1,0,0],[1,0,1,0,0,0,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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 [[0,0,0,0,1,0,0,0,0],[0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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  \begin{bmatrix} [0,0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
 \begin{bmatrix} [0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
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 [[0,1,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,1],[0,0,0,1,1,1,1,1,0,0],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,1],[0,1,0],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1]
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  \begin{bmatrix} [0,0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,
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 [[0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,2,1],[0,0,1,1,1,1,1,2,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[
1,[
  \begin{bmatrix} [0,1,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
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    \begin{bmatrix} [0,1,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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    \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,1,0,0,0,0,1,1,1], [0,0,0,1,1,1,1,1,0,0], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1], [0,1,0,1,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0
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   [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
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    \begin{bmatrix} [0,0,1,0,0,0,0,0], [0,0,0,1,1,1,1,0,0], [1,0,1,0,0,0,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0
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    [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
    \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,1,0,0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,0,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1], [0,1,0,1,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,
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  \begin{bmatrix} [0,0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[1,1,1,2,1,2,1,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[
  \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,1,1,2,1,2,2,2], [1,1,1,2,2,1,1,2,2], [0,1,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [
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  \begin{bmatrix} [0,1,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,1],[0,0,0,1,1,1,1,1,0,0],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
  [[0,0,1,0,0,0,0,0,0],[0,0,0,1,1,1,1,0,0],[1,0,1,0,0,0,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1
  [[0,0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[1,1,1,0,2,3,1,2,2],[0,1,1,2,2,2],[0,1,1,3,1,0,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2]],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,2,2],[0,1,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[
  \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,1,2,1,1,2,2,2], [1,1,1,1,4,0,1,2,2], [0,1,1,1,0,3,2,2,2], [0,1,1,2,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,1,2,2,2], [0,1,1,2,1,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,1,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2],
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  [[0,0,0,0,1,0,0,0,0],[0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,0,2,2,2,2],[1,1,1,0,4,1,1,2,2],[0,1,1,2,1,2,2,2],[0,1,1,2,1,2,2,2,2],[0,1,1,2,1,2,2,2,2],[0,1,1,2,1,2,2,2,2],[0,1,1,2,1,2,2,2],[0,1,1,2,1,2,2,2],[0,1,1,2,1,2,2,2],[0,1,1,2,1,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2
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```
 \begin{bmatrix} [0,0,0,0,0,0,1,0,0],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
 \begin{bmatrix} [0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,2,1],[0,0,1,1,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
 \begin{bmatrix} [0,1,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,1],[0,0,0,1,1,1,1,1,0,0],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1]
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 [[0,0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[1,1,1,2,1,2,1,2,1,2,2],[0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],
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S1320b=[[
 \begin{bmatrix} [0,1,0,0,0,0,0,0], [0,0,1,0,0,0,0,1,0], [1,0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,1,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0
 [[0,0,1,0,0,0,0,0,0],[1,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0,1],[0,0,0,0,1],[0,0,0,0,1],[0,0,0,0,1],[0,0,0,0,1],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
[[0,0,0,1,0,0,0,0,0],[0,0,0,0,0,1,0,1,0],[0,0,0,0,0,1,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[1,0,0,0,0,0],[1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[[0,0,0,0,1,0,0,0,0],[0,0,0,1,0,0,0,0],[0,0,0,1,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
 [[0,0,0,0,0,1,0,0,0],[0,0,0,0,1,1],[0,0,0,1,1],[0,0,1,0,0,0,1,1],[0,0,1,0,0,0,1,1],[0,1,0,0,0,0,1,1],[1,0,0,0,0,0,1,2,2],[0,0,0,1,1,1,0,2,2],[0,1,1,1,1,2,2,2,4],[0,1,1,1,1,2,2,4,4]], \\
[[0,0,0,0,0,0,0,1,0,0],[0,0,0,0,0,0,1,1,1],[0,0,0,0,0,0,0,1,1,1],[0,0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[[0,0,0,0,0,0,0,0,1,0],[0,0,1,0,1,1,1,1,2],[0,1,0,1,0,1,1,1,2],[0,0,1,0,1,1,1,2,2],[0,1,0,1,0,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2,2,4],[0,1,1,1,1,2,2,3,4],[1,1,1,2,2,2,3,6,8],[0,2,2,2,2,4,4,8,8]],
 \begin{bmatrix} [0,0,0,0,0,0,0,0,0,1], [0,1,0,1,0,1,1,2,2], [0,0,1,0,1,1,1,2,2], [0,1,0,1,0,1,1,2,3], [0,0,1,0,1,1,1,2,3], [0,1,1,1,1,2,2,4,4], [0,1,1,1,1,2,2,4,5], [0,2,2,2,2,4,4,8,8], [1,2,2,3,3,4,5,8,11] \end{bmatrix} 
#r9d1512t[[1, 1], [6, 1], [7, 1], [8, 4], [21, 1], [27, 1]]
 [[0,1,0,0,0,0,0,0,0],[1,1,0,0,0,0,1,1,0],[0,0,1,0,0,0],[0,0,1,0,1],[0,0,0,0,0,0,0],1],[0,0,0,0,0,0,0],1],[0,0,0,0,0,0,0],1],[0,1,1,0,0,0,1],[0,1,1,1,1,0,2,2],[0,0,1,1,1,1,1,1,2,3]], \\ [[0,1,0,0,0,0,0,0,0],[1,1,0,0,0,0],[1,1,0,0,0],[1,1,0,0,0],[1,1,0,0],[0,0,0],[1,1,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
[[0,0,1,0,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[1,1,1,0,0,0,1,0,1],[0,0,0,1,0,0],[0,0,0,1,0,0],[1,1,1,0,0,0],[0,0,1,1,1,0,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[[0,0,0,1,0,0,0,0,0],[0,0,0,0,0,0,0,1,1],[0,0,0,1,0],[0,1,1],[1,0,1,0,0,1,1],[0,0,0,0,1,0],[0,1,1,1],[0,0,0,0,1,1],[0,0,0,1,1],[0,0,0,0,1,1],[0,0,0,0],[0,0,0,1,1],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,0,0,0,0,0,1,1], [0,0,0,0,1,0], [0,0,0,0,1,1], [0,0,0,0,1,1], [0,0,0,0,1,1], [0,0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], 
[[0,0,0,0,0,0,0,1,0,0],[0,1,1,0,0,0,1,0,1],[0,1,1,0,0,0,2,0,1],[0,0,0,0,0,1,1,0,1,1],[0,0,0,1,0,1,1],[0,0,0,1,1,0,0,1,1],[1,1,2,0,0,0,2,0,1],[0,0,0,1,1,1,0,3,3],[0,1,1,1,1,1,1,1,3,4]],
 [[0,0,1,0,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[1,1,1,0,0,0,1,0,1],[0,0,0,1,0,0,0,1,1],[0,0,0,0,1,0],[0,0,0,1,0],[0,0,1,0,0,1,1],[0,0,0,0,1,0],[0,0,1,1],[0,0,0,0,1,0],[0,0,1,1],[0,0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,1,0],
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 [ [0,0,1,0,0,0,0,0,0], [0,0,1,0,0,0,1,0,1], [1,1,1,0,0,0,1,0,1], [0,0,0,1,0,0,0,1,1], [0,0,0,0,1,0,0,1,1], [0,0,0,0,1,0,1], [0,0,1,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0], [0,0,1], [0,0,0], [0,0,1], [0,0,0], [0,0,1], [0,0,0], [0,0,1], [0,0,0], [0,0,1], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], 
[[0,0,0,1,0,0,0,0,0],[0,0,0,0,0,0],[0,0,0,0,0,0],[1],[0,0,0,1,0,0,0],[1],[1,0,1,0,0],[1,1],[0,0,0,0],[0,1,1],[0,0,0],[1,1],[0,0,0],[1,1],[0,1,1],[0,0,0],[0,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,0,0,0,0,0,1,1], [0,0,0,0,1,0], [0,0,0,0,1,1], [0,0,0,0,1,1], [0,0,0,1,1], [1,0,1,1,0,0,0,1,1], [0,0,0,0,0,1,1], [0,0,0,1,0,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1
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 \begin{bmatrix} [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
   [[0,0,1,0,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[1,1,1,0,0,0,1,0,1],[0,0,0,1,0,0,1,1],[0,0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],
   \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,0,0,0,0,0,1,1], [0,0,0,0,0,1,1], [0,0,0,0,0,1,1], [1,0,1,0,1,0,0,1,1], [0,0,0,1,0,1,1], [0,0,0,1,0,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1]
  [[0,0,0,0,0,1,0,0,0],[0,0,0,0,0,0,0,1,1],[0,0,0,0,0,0,1,0],[0,0,0,0,0,1,0],[0,0,0,0],[0,0,1,1],[0,0,0,0,1,0],[0,0,0,1,1],[0,0,0,1,1],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
  [[0,0,0,0,0,0,1,0,0],[0,1,1,0,0,0,1,0,1],[0,1,1,0,0,0,2,0,1],[0,0,0,0,1,1,0,1,1],[0,0,0,1,0,1,0],[0,0,0,1,1,0,0,1,1],[1,1,2,0,0,0,2,0,1],[0,0,0,1,1,1,0,3,3],[0,1,1,1,1,1,1,1,1,3,4]],
  #r9d2520t[[1, 1], [6, 1], [10, 2], [14, 2], [15, 1], [21, 1], [35, 1]]
 S2520=[[
  [[0,1,0,0,0,0,0,0,0],[1,0,0,0,0,1,0],[0,0,0,1,0,1,0],[0,0,0,1,0,0],[0,0,1,0,0],[0,0,1,0,0],[0,0,1,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
   \begin{bmatrix} [0,0,1,0,0,0,0,0,0], [0,0,0,1,0,0], [0,0,0,1,0,1], [0,1,0,1,1], [1,0,0,0,1,1], [1,0,0,0,1,1], [0,0,1,1,1,1,2], [0,0,1,1,1,1,2], [0,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1,1,1,1,1], [0,0,1,1,1,1
  [[0,0,0,1,0,0,0,0,0],[0,0,1,0,1,0],[0,0,1,0,0],[0,0,1,0,1],[1,0,0,0,1,1,1,1,1],[0,1,1,0,1,1],[0,0,1,1,1,0,1,1,2],[0,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,2],[0,1,0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
   [[0,0,0,0,0,1,0,0,0],[0,1,0,0,2,0,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,2,0,0,2,0,2,1,3],[1,0,1,1,0,3,0,3,2],[0,1,1,1,2,0,2,1,3],[0,0,1,1,1,3,1,3,4],[0,1,2,2,3,2,3,4,7]], \\
   [[0,0,0,0,0,0,1,0,0],[0,0,1,1,0,1,0,1,1],[0,1,1,0,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,0,1,1,0,2,1,2,3],[0,1,1,1,2,0,2,1,3],[1,0,1,1,1,2,1,2,1,2,3],[0,1,1,1,2,1,2,1,2,2,5],[0,1,2,2,3,3,3,5,7]], \\
   \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0], [0,1,0,0,1,0,1,1,2], [0,0,1,1,1,1,1,2,3], [0,0,1,1,1,1,1,2,3], [0,1,1,1,3,1,2,2,4], [0,0,1,1,1,3,1,3,4], [0,1,1,1,2,1,2,2,5], [1,1,2,2,2,3,2,4,6], [0,2,3,3,4,4,5,6,10] \end{bmatrix}, 
   [[0,0,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,2,3],[0,1,1,1,2,2,2,3,5],[0,1,1,1,2,2,2,3,5],[0,1,2,2,2,3,3,4,7],[0,1,2,2,3,3,4,7],[0,1,2,2,3,3,3,5,7],[0,2,3,3,4,4,5,6,10],[1,3,5,5,7,7,7,10,17]] 
   [ [0,1,0,0,0,0,0,0], [1,0,0,0,0,1,0], [0,0,1,0,1,0], [0,0,1,0,0], [0,0,1,0,0], [0,0,1,0,1], [0,0,0,1,1,0,1], [0,1,0,0,1,1,1,0,1], [0,0,1,1,0,1,1], [0,1,0,0,1,1], [0,1,0,0,1,1], [0,1,0,0,1,1], [0,1,0,0,1], [0,0,1,1,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,0], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1],
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   [[0,0,0,0,1,0,0,0,0],[0,0,0,0,1,1,0,1,1],[0,0,1,1,1,0,1,1,2],[0,0,1,1,1,0,1,1,2],[1,1,1,1,2,1,1,2,2],[0,1,0,0,1,1,1,2,3],[0,0,1,1,1,1,2,3],[0,1,1,1,2,2,2,2,2,4],[0,1,2,2,2,3,3,4,7]], \\
   [[0,0,0,0,0,1,0,0,0],[0,1,0,0,1,1,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,1,0,0,1,1,1,2,3],[1,1,1,1,1,2,1,2],[0,1,1,1,1,1,2,1,3],[0,0,1,1,2,2,1,3,4],[0,1,2,2,3,2,3,4,7]], \\
   \begin{bmatrix} [0,0,0,0,0,0,0,1,0], [0,1,0,0,1,0,1,1,2], [0,0,1,1,1,1,1,2,3], [0,0,1,1,1,1,1,2,3], [0,1,1,1,2,2,2,2,4], [0,0,1,1,2,2,2,3,4], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,1,1,2,2,2,3,3], [0,1,2,2,2,3,3,3,4,7], [0,1,2,2,3,3,3,3,5,7], [0,2,3,3,4,4,5,6,10], [1,3,5,5,7,7,7,10,17] \end{bmatrix} 
   [ [0,1,0,0,0,0,0,0], [1,0,0,0,0,1,0,1,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,0,1,0,0], [0,1,0,0,2,0,1,0,1], [0,0,1,1,0,1,0,1], [0,0,1,1,0,1,0], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,0,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1], [0,0,1,1,1], [0,0,1,1,1], [0,0,1,1,1], [0,0,1,1], [0,0,1,1], [0,0,1,1
  [[0,0,1,0,0,0,0,0,0],[0,0,0,1,0,0],[0,1,0,1],[0,1,0,1],[0,1,0,1],[1,0,0,0,1],[1,1,1],[0,0,1,1,0,0],[0,0,1,1,0,1],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
   \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,0,0,1,2,0,2,0], [0,0,1,1,0,0,1,0,3], [0,0,1,1,0,0,1,0,3], [1,1,0,0,3,3,0,5,0], [0,2,0,0,3,0,2,2,2], [0,0,1,1,0,2,1,2,3], [0,2,0,0,5,2,2,4,2], [0,0,3,3,0,2,3,2,9]], \\ [[0,0,0,0,0,0,1,0,0,0], [0,1,0,0,2,0,1,0,1], [0,0,1,1,0,1,1,1,2], [0,0,1,1,0,1,1,1,2], [0,2,0,0,3,0,2,2,2], [1,0,1,1,0,3,0,3,2], [0,1,1,1,2,0,2,1,3], [0,0,1,1,2,3,1,4,3], [0,1,2,2,2,2,3,3,8]], \\ [[0,0,0,0,0,0,1,0,0,0], [0,1,0,0,2,0,1,0,1], [0,0,1,1,0,1,1,1,2], [0,0,1,1,0,1,1,1,2], [0,2,0,0,3,0,2,2,2], [1,0,1,1,0,3,0,3,2], [0,1,1,1,2,3,1,4,3], [0,0,1,1,2,3,1,4,3], [0,1,2,2,2,2,2,3,3,8]], \\ [[0,0,0,0,0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
   [ [0,0,0,0,0,0,1,0,0], [0,0,1,1,0,1,0,1,1], [0,1,1,0,1,1,1,1,2], [0,1,0,1,1,1,1,1,2], [0,0,1,1,0,2,1,2,3], [0,1,1,1,2,0,2,1,3], [1,0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,2,3], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,1,2], [0,1,1,1,
   \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0],[0,1,0,0,2,0,1,2,1],[0,0,1,1,0,1,1,1,4],[0,0,1,1,0,1,1,1,4],[0,2,0,0,5,2,2,4,2],[0,0,1,1,2,3,1,4,3],[0,1,1,1,2,1,2,2,5],[1,2,1,1,4,4,2,6,4],[0,1,4,4,2,3,5,4,12] \end{bmatrix}, 
  [[0,0,0,0,0,0,0,0,0],[0,0,1,1,0,1,1,1,4],[0,1,1,1,3,2,2,4,4],[0,1,1,1,3,2,2,4,4],[0,0,3,3,0,2,3,2,9],[0,1,2,2,2,2,3,3,8],[0,1,2,2,3,3,3,5,7],[0,1,4,4,2,3,5,4,12],[1,4,4,4,9,8,7,12,15]]
   [[0,1,0,0,0,0,0,0],[1,0,0,0,0,1,0],[0,0,1,0,1,0],[0,0,0,1,0,1],[0,0,1,0,0],[0,0,0,1,0,1],[0,0,0,1,0,0],[0,1,0,0,2,0],[0,1,0,0,2],[0,1,0,0,1],[0,0,1,1,0,1],[0,0,1,1,0,1],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0,0,1,1,0],[0
   [[0,0,1,0,0,0,0,0,0],[0,0,0,1,0,0],[0,1,1,2,1,1],[0,1,1,2,1,1],[0,1,1,2,1,1],[0,1,1,1,1,1],[0,0,1,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,1,2,1,1,1,2],[0,1,2,1,1],[0,0,1,1,0,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
   \begin{bmatrix} [0,0,0,1,0,0,0,0,0], [0,0,1,0,0,0,1,0,1], [1,0,1,1,1,1,2,1,0], [0,1,2,1,1,1,1,1,0], [0,0,1,1,0,0,1,0,3], [0,0,1,1,0,1,1,1,2], [0,1,1,2,1,1], [0,0,1,1,0,1,1,1,4], [0,1,0,0,3,2,1,4,5] \end{bmatrix}, \\
   [[0,0,0,0,1,0,0,0,0],[0,0,0,0,1,2,0,2,0],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,0,1,0,3],[1,1,0,0,3,3,0,5,0],[0,2,0,0,3,0,2,2,2],[0,0,1,1,0,2,1,2,3],[0,2,0,0,5,2,2,4,2],[0,0,3,3,0,2,3,2,9]], \\
   [[0,0,0,0,0,1,0,0,0],[0,1,0,0,2,0,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,2,0,0,3,0,2,2,2],[1,0,1,1,0,3,0,3,2],[0,1,1,1,2,0,2,1,3],[0,0,1,1,2,3,1,4,3],[0,1,2,2,2,2,2,3,3,8]], 
  [[0,0,0,0,0,0,0,1,0,0],[0,0,1,1,0,1,0,1,1],[0,1,2,1,1,1,2,1,1],[0,1,1,2,1,1],[0,1,1,2,1,1],[0,0,1,1,0,2,1,2,1],[0,0,1,1,1,2,0,2,1,3],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,1,2,2,2,3],[0,1,1,1,2,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,
   \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0],[0,1,0,0,2,0,1,2,1],[0,0,1,1,0,1,1,1,4],[0,0,1,1,0,1,1,1,4],[0,2,0,0,5,2,2,4,2],[0,0,1,1,2,3,1,4,3],[0,1,1,1,2,1,2,2,5],[1,2,1,1,4,4,2,6,4],[0,1,4,4,2,3,5,4,12] \end{bmatrix}, \\
   [[0,0,0,0,0,0,0,0,0,0],[0,0,1,1,0,1,1,1,4],[0,1,0,0,3,2,1,4,5],[0,1,0,0,3,2,1,4,5],[0,0,3,3,0,2,3,2,9],[0,1,2,2,2,2,3,3,8],[0,1,1,1,3,3,2,5,8],[0,1,4,4,2,3,5,4,12],[1,4,5,5,9,8,8,12,14]] 
   [ [0,1,0,0,0,0,0,0], [1,1,0,0,0,1,1,0,0], [0,0,0,1,0,0,1], [0,0,1,0,0,1], [0,0,1,0,0], [0,0,0,1,1,0,1], [0,0,0,0,1,1,1,0,1], [0,1,1,1,0,1], [0,1,1,1,0,1], [0,1,1,1,0,1], [0,0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,
   [[0,0,1,0,0,0,0,0,0],[0,0,0,1,0,1],[0,1,0,1,1,1,1,1],[1,0,0,0,1,1,1,1],[1,0,0,0,1,1,1,1],[0,0,1,1,1,0,1,1],[0,0,1,1,0,1,1,1,1],[0,0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0
  [[0,0,0,1,0,0,0,0,0],[0,0,1,0,1,0,0],[0,0,1,0,1],[1,0,0,0,1,1,1,1,1],[0,1,1,0,1,1,0,1,1],[0,0,1,1,1,0,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
   [[0,0,0,0,0,1,0,0,0],[0,1,0,0,1,1,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,1,0,0,1,1,1,2,3],[1,1,1,1,1,2,1,2],[0,1,1,1,1,1,2,1,3],[0,0,1,1,2,2,1,3,4],[0,1,2,2,3,2,3,4,7]], \\
   \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0], [0,0,0,0,1,0,0,2,2], [0,0,1,1,1,1,1,2,3], [0,0,1,1,1,1,1,2,3], [0,1,1,1,2,2,2,2,4], [0,0,1,1,2,2,1,3,4], [0,0,1,1,2,1,1,3,5], [1,2,2,2,2,3,3,3,6], [0,2,3,3,4,4,5,6,10]], \\ [[0,0,0,0,0,0,0,0,0], [0,1,1,1,1,1,2,3], [0,1,1,1,2,2,2,3,5], [0,1,1,1,2,2,2,3,3,4,7], [0,1,2,2,3,3,4,7], [0,1,2,2,3,3,3,5,7], [0,2,3,3,4,4,5,6,10], [1,3,5,5,7,7,7,10,17]] \end{bmatrix} 
   \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,1,0,0,0,1,1,0,0], [0,0,0,1,0,0,1], [0,0,1,0,0,1], [0,0,1,0,0], [0,0,0,1,1,0], [0,0,0,0,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0,1], [0,0,0,0,1,1,0,1], [0,0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,0], [0,1,1,1,1,0], [0,1,1,1,1,0], [0,1,1,1,1,0], [0,1,1,1,1,0], [0,1,1,1,1,0], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1],
  [[0,0,1,0,0,0,0,0,0],[0,0,0,1,0,0],[0,1,0,1],[0,1,0,1],[0,1,0,1],[1,0,0,0,1,1,1],[1,0,0,0,1,1,1,0],[0,0,1,1,0,0],[0,0,1,1,0,0],[0,0,1,1,1,1,1],[0,1,1,1,1],[0,0,1,1,1,0],[0,0,1,1,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
   [[0,0,0,1,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[1,0,0,0,1,1,1],[0,1,1,0,1,1],[0,0,1,1,1,0,1,1,2],[0,0,1,1,0,0,1,0,3],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
  [[0,0,0,0,1,0,0,0,0],[0,0,0,0,1,1,0,1,1],[0,0,1,1,1,0,1,1,2],[0,0,1,1,1,0,1,1,2],[1,1,1,1,2,1,1,2,2],[0,1,0,0,1,2,1,3,2],[0,0,1,1,1,1,1,2,3],[0,1,1,1,2,3,2,3,3],[0,1,2,2,2,2,2,3,3,8]],
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 [[0,0,0,0,0,1,0,0,0],[0,1,0,0,1,2,1,1,0],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,0,1,0,3],[0,1,0,0,1,2,1,3,2],[1,2,0,0,2,4,1,4,0],[0,1,1,1,1,1,2,1,3],[0,1,0,0,3,4,1,5,2],[0,0,3,3,2,0,3,2,9]], 
 [[0,0,0,0,0,0,1,0,0],[0,1,1,1,0,1],[0,1,1,0,1],[0,1,1,0,1,1,1,1,2],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2,3],[0,1,1,1,1,1,2,1,3],[1,1,1,1,1,2,2,1,3],[0,0,1,1,2,1,1,3,5],[0,1,2,2,3,3,3,5,7]], \\
 \begin{bmatrix} [0,0,0,0,0,0,0,0,0,1],[0,0,1,1,1,0,1,1,4],[0,1,1,1,2,3,2,4,4],[0,1,1,1,2,3,2,4,4],[0,1,2,2,2,2,2,3,3,8],[0,0,3,3,2,0,3,2,9],[0,1,2,2,3,3,3,5,7],[0,1,4,4,3,2,5,4,12],[1,4,4,4,8,9,7,12,15] \end{bmatrix} 
[[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
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 [[0,0,0,0,0,1,0,0,0],[0,1,0,0,0,2,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,0,0,0,1,1,0,3,3],[1,2,1,1,1,2,2,1,2],[0,1,1,1,0,2,2,1,3],[0,0,1,1,3,1,1,3,4],[0,1,2,2,3,2,3,4,7]], \\
[[0,0,0,0,0,0,1,0,0],[0,1,1,1,0,1],[0,1,1,0,1],[0,1,1,0,1],[0,1,1,1,1,2],[0,1,0,1,1,1,1,2],[0,0,1,1,2,0,1,2,0],[0,1,1,1,0,2,2,1,3],[1,1,1,1,1,2,2,1,3],[0,0,1,1,2,1,1,3,5],[0,1,2,2,3,3,3,5,7]],
[[0,0,0,0,0,0,0,0,0],[0,1,1,1,1,1,2,3],[0,1,1,1,2,2,2,3,5],[0,1,1,1,2,2,2,3,5],[0,1,2,2,2,3,3,4,7],[0,1,2,2,3,3,4,7],[0,1,2,2,3,3,3,5,7],[0,2,3,3,4,4,5,6,10],[1,3,5,5,7,7,7,10,17]]
[[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[[0,1,0,0,0,0,0,0,0],[1,1,0,0,0,1,1,0,0],[0,0,0,1,1,0,0],[0,0,0,1,0,0,1],[0,0,1,0,0,1],[0,0,0,0,1,0,0],[0,0,0,1,0,0],[0,0,0,1,1,0,0],[0,0,0,1,1,0,0],[0,0,0,1,1,0,0],[0,0,0,1,1,0,0],[0,0,0,1,1,0,0],[0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
 [ [0,0,1,0,0,0,0,0,0], [0,0,0,1,0,0], [0,0,0,1,0,0], [0,1,0,1,0,1], [0,1,0,1,0,0], [1,0,0,0,0,1,1,0,2], [0,0,0,0,1,1,0,2], [0,0,1,1,1,0,1,1,2], [0,0,1,1,0,0,1,1,0,3], [0,0,0,0,2,1,0,3,3], [0,1,2,2,2,2,3,3,4]], ] ] ] ] ] ] [ [0,0,1,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], 
[[0,0,0,1,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[1,0,0,0,0,1,1,0,2],[0,1,1,0,0,1,0,0,2],[0,0,0,0,1,1,0,2,2],[0,0,0,1,1,0,1,1,2],[0,1,0,1,0,1,1,0,3],[0,0,0,0,2,1,0,3,3],[0,1,2,2,2,2,3,3,4]],
[[0,0,0,0,1,0,0,0,0],[0,0,0,0,2,0,0,1,1],[0,0,0,0,1,1,0,2,2],[0,0,0,0,1,1,0,2,2],[1,2,1,1,1,1,2,0,3],[0,0,1,1,0,1,2,3],[0,0,0,0,2,1,0,3,3],[0,1,2,2,0,2,3,0,5],[0,1,2,2,3,3,3,5,6]],
 [[0,0,0,0,0,0,1,0,0],[0,1,1,1,0,1,1,0,1],[0,1,1,0,0,1,1,0,3],[0,1,0,1,0,1,1,0,3],[0,0,0,0,2,1,0,3,3],[0,1,1,1,1,2,2,2,2],[1,1,1,1,0,2,2,0,4],[0,0,0,0,3,2,0,5,4],[0,1,3,3,3,2,4,4,7]], \\
[[0,0,0,0,0,0,0,0,0],[0,0,1,1,1,0,1,1,4],[0,1,2,2,2,2,3,3,4],[0,1,2,2,2,2,3,3,4],[0,1,2,2,2,3,3,3,5,6],[0,0,2,2,3,0,2,3,9],[0,1,3,3,3,2,4,4,7],[0,1,3,3,5,3,4,7,10],[1,4,4,4,6,9,7,10,17]]
 [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],
[[0,1,0,0,0,0,0,0,0],[1,0,0,0,0,1,0],[0,0,0,1,0,1,0],[0,0,0,1,0,0],[0,0,1,0,0],[0,0,1,0,0],[0,0,0,1,0,0],[0,0,0,0,0],[0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[[0,0,1,0,0,0,0,0,0],[0,0,0,1,0,0],[0,1,0,1],[1,0,0,2,1,1,2,1,0],[0,1,2,1,1,1,1,1,0],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,1,1,1,2],[0,1,2,1,1,1,2,1,1],[0,0,1,1,0,1,1,1,4],[0,1,0,0,3,2,1,4,5]],
 [[0,0,0,1,0,0,0,0,0],[0,0,1,0,0,0,1,0,1],[0,1,2,1,1,1,1,1,0],[1,0,1,1,1,1,2,1,0],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,1,1,1,2],[0,1,1,2,1,1],[0,0,1,1,0,1,1,1,4],[0,1,0,0,3,2,1,4,5]], \\
 [[0,0,0,0,1,0,0,0,0],[0,0,0,0,1,2,0,2,0],[0,0,1,1,0,0,1,0,3],[0,0,1,1,0,0,1,0,3],[1,1,0,0,3,3,0,5,0],[0,2,0,0,3,0,2,2,2],[0,0,1,1,0,2,1,2,3],[0,2,0,0,5,2,2,4,2],[0,0,3,3,0,2,3,2,9]], \\
 [[0,0,0,0,0,1,0,0,0],[0,1,0,0,2,0,1,0,1],[0,0,1,1,0,1,1,1,2],[0,0,1,1,0,1,1,1,2],[0,2,0,0,3,0,2,2,2],[1,0,1,1,0,3,0,3,2],[0,1,1,1,2,0,2,1,3],[0,0,1,1,2,3,1,4,3],[0,1,2,2,2,2,2,3,3,8]], 
 [[0,0,0,0,0,0,0,1,0,0],[0,0,1,1,0,1,0,1,0],[0,1,1,1,1,2,1,1],[0,1,2,1,1],[0,1,1,2,1,1],[0,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,2,1,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2,1],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1
 \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0],[0,1,0,0,2,0,1,2,1],[0,0,1,1,0,1,1,1,4],[0,0,1,1,0,1,1,1,4],[0,2,0,0,5,2,2,4,2],[0,0,1,1,2,3,1,4,3],[0,1,1,1,2,1,2,2,5],[1,2,1,1,4,4,2,6,4],[0,1,4,4,2,3,5,4,12] \end{bmatrix}, 
[[0,0,0,0,0,0,0,0,0],[0,0,1,1,0,1,1,1,4],[0,1,0,0,3,2,1,4,5],[0,1,0,0,3,2,1,4,5],[0,0,3,3,0,2,3,2,9],[0,1,2,2,2,2,3,3,8],[0,1,1,1,3,3,2,5,8],[0,1,4,4,2,3,5,4,12],[1,4,5,5,9,8,8,12,14]]
#r9d2730t[[1, 1], [13, 3], [14, 1], [15, 2], [26, 1], [30, 1]]
 \begin{bmatrix} [0,0,1,0,0,0,0,0], [0,1,0,2,1,1,1,1,2], [1,0,1,1,0,1,1,2,2], [0,2,1,0,1,1,1,1,2], [0,1,0,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,2,1,2,2,2,2,2,2,2,2,2,2,4,4] \end{bmatrix}, 
 \begin{bmatrix} [0,0,0,1,0,0,0,0,0], [0,1,2,0,1,1,1,1,2], [0,2,1,0,1,1,1,1,2], [1,0,0,2,0,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1
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[[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
 \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,0,1,1,0,1,1,2,2], [0,1,0,2,1,1,1,1,2], [0,1,2,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,2,1,1,2,2], [0,2,1,1,2,2], [0,2,2,2,2,2,2,2,4,4] \end{bmatrix}, 
 [[0,0,1,0,0,0,0,0,0],[0,1,0,2,1,1,1,1,2],[1,0,1,3,0,1,1,1,2],[0,2,3,0,1,1,1,0,2],[0,1,0,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2,2],[0,1,1,1,2],[0,1,1,2,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1
[[0,0,0,1,0,0,0,0,0],[0,1,2,0,1,1,1,1,2],[0,2,3,0,1,1,1,0,2],[1,0,0,4,0,1,1,1,2],[0,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,0,1,2,2,2,4,4],[0,2,2,2,2,2,2,4,4]],
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 \begin{bmatrix} [0,1,0,0,0,0,0,0,0,0],[1,0,1,1,0,1,1,2,2],[0,1,0,2,1,1,1,1,2],[0,1,2,0,1,1,1,1,2],[0,0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[
 [[0,0,1,0,0,0,0,0,0],[0,1,0,2,1,1,1,1,2],[1,0,1,3,0,1,1,1,2],[0,2,3,0,1,1,1,0,2],[0,1,0,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1
[[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
 \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,0,1,1,0,1,1,2,2], [0,1,0,2,1,1,1,1,2], [0,1,2,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,2,1,1,2,2], [0,2,1,1,2,2], [0,2,1,1,2,2], [0,2,2,2,2,2,2,2,4,4] \end{bmatrix}, 
 [[0,0,1,0,0,0,0,0,0],[0,1,0,2,1,1,1,1,2],[1,0,2,2,0,1,1,1,2],[0,2,2,1,1,1,1,0,2],[0,1,0,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2],[0,1,1,1,2,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1
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 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,2,2], [0,1,0,1,1,1,1,2,2], [0,1,1,0,1,1,1,2,2], [1,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,
 [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
 [[0,0,0,1,0,0,0,0,0],[0,1,2,0,1,1,1,1,2],[0,2,2,1,1,1,1,0,2],[1,0,1,3,0,1,1,1,2],[0,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,0,1,2,2,2,4,4],[0,2,2,2,2,2,2,2,4,4]], ] 
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0],[0,0,1,1,1,1,1,2,2],[0,1,0,1,1,1,1,2,2],[0,1,1,0,1,1,1,2,2],[1,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1,1,1,1,1,1,
 [[0,1,0,0,0,0,0,0,0],[1,2,0,0,0],[1,2,2],[0,0,2,1,1,1,1,1,2],[0,0,1,2,1,1,1,1,2],[0,0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,2,1,1,2,2],[0,2,1,1,2,2],[0,2,1,1,2,2],[0,2,1,1,2,2],[0,2,1,1,2,2],[0,2,2,2,2,2,2,2,2,2,2], ]] 
 \begin{bmatrix} [0,0,0,1,0,0,0,0,0], [0,0,1,2,1,1,1,1,2], [0,1,0,0,1,1,1,2,2], [1,2,0,2,0,1,1,1,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,2,1,2,2,2,2,3,4], [0,2,2,2,2,2,2,4,4] \end{bmatrix}, 
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,2,2], [0,1,0,1,1,1,1,2,2], [0,1,1,0,1,1,1,2,2], [1,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1
[[0,0,0,0,0,0,0,0,1,0],[0,2,1,1,2,2,2,3,4],[0,1,1,2,2,2,2,3,4],[0,1,2,1,2,2,2,3,4],[0,2,2,2,2,2,2,2,3,4],[0,2,2,2,2,2,2,2,4,4],[0,2,2,2,2,2,2,4,4],[1,3,3,3,3,4,4,6,8],[0,4,4,4,4,4,4,4,4,4,4,4,8,8]],
[[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
 [[0,0,0,1,0,0,0,0,0],[0,0,1,2,1,1,1,1,2],[0,1,0,0,1,1,1,2,2],[1,2,0,2,0,1,1,1,2],[0,1,1,0,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,2,1,2,2,2,3,4],[0,2,2,2,2,2,2,4,4]], \\
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,2,2], [0,1,0,1,1,1,1,2,2], [0,1,1,0,1,1,1,2,2], [1,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1
 \begin{bmatrix} [0,1,0,0,0,0,0,0], [1,0,1,1,0,1,1,2,2], [0,1,0,2,1,1,1,1,2], [0,1,2,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,2,1,1,2,2], [0,2,1,1,2,2], [0,2,2,2,2,2,2,2,4,4] \end{bmatrix}, 
 [[0,0,0,1,0,0,0,0,0],[0,1,2,0,1,1,1,1,2],[1,0,1,1,0,1,1,2,2],[0,2,0,1,1,1,1,1,2],[0,1,1,0,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,1,1,2],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,0,1,1,1,1,1,2,2], [0,1,0,1,1,1,1,2,2], [0,1,1,0,1,1,1,2,2], [0,1,1,1,1,2,2], [1,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,2,
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```

```
 [[0,1,0,0,0,0,0,0,0],[1,0,1,1,0,1,1,2,2],[0,1,0,2,1,1,1,1,2],[0,1,2,0,1,1,1,1,2],[0,0,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,2,2],[0,2,1,1,2,2],[0,2,1,1,2,2,2,3,4],[0,2,2,2,2,2,2,4,4]], 
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 \begin{bmatrix} [0,0,0,1,0,0,0,0,0], [0,1,2,0,1,1,1,1,2], [1,0,2,2,0,1,1,1,2], [0,2,1,2,1,1,1,0,2], [0,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,1,1,1,1,1,2,2], [0,1,0,1,2,2,2,4,4], [0,2,2,2,2,2,2,2,4,4] \end{bmatrix}, 
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#r9d3420t[[1, 1], [9, 2], [19, 1], [20, 4], [36, 1]]
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 \begin{bmatrix} [0,0,0,0,0,0,1,0,0], [0,1,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,1,2], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,4,3,1,4], [0,1,1,2,4,2,2,2,4], [1,1,1,3,3,2,0,4,4], [0,1,1,2,1,2,4,3,4], [0,2,2,4,4,4,4,4,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,4,3,1,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,4,3,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,
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 \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,1,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,1,1,2,3,2,2,2,4], [1,1,1,3,0,2,3,4,4], [0,1,1,2,2,2,3,3,4], [0,1,1,2,3,3,1,3,4], [0,1,1,2,4,3,3,0,4], [0,2,2,4,4,4,4,4,4] \end{bmatrix}, 
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 \begin{bmatrix} [0,1,0,0,0,0,0,0], [0,0,1,0,0,0,0,0], [0,1,1,1,1,1,1], [0,0,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,0,1,1,1,1], [0,1,0,1,1], [0,1,0,1,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1], [0,1,0,1
 [[0,0,1,0,0,0,0,0,0],[1,0,0,0,1,1,1,1,0],[0,1,0,0,0,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1],[0,0,1,1],[0,0,1,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0
 [[0,0,0,0,1,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2],[0,1,1,2,3,2,2,2,4],[1,1,1,3,0,2,3,4,4],[0,1,1,2,2,2,3,3,4],[0,1,1,2,3,3,2,2,4],[0,1,1,2,4,3,2,1,4],[0,2,2,4,4,4,4,4,8]], ] ] \\
 \begin{bmatrix} [0,0,0,0,0,1,0,0,0], [0,1,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,1,1,2,2,3,2,2,4], [0,1,1,2,2,2,3,3,4], [1,1,1,3,2,3,2,2,4], [0,1,1,2,3,2,2,3,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,3,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,3,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,1,2,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,2,4], [0,1,1,2,2
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 \begin{bmatrix} [0,0,1,0,0,0,0,0,0], [1,0,0,0,1,1,1,1,0], [0,1,0,0,0,0,0,0], [0,0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1,1], [0,0,1,1,1,1], [0,0,1,1,1], [0,0,1,1], [0,0,1,1], [0,0,1,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1]
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  [[0,0,0,0,1,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,3,2,2,2,4],[1,1,1,3,1,2,2,4,4],[0,1,1,2,2,3,3,4],[0,1,1,2,2,3,2,3,4],[0,1,1,2,4,3,3,0,4],[0,2,2,4,4,4,4,4,8]], ] ] \\
  [[0,0,0,0,0,1,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,3,2,2,4],[0,1,1,2,2,2,3,3,4],[1,1,1,3,2,2,3,2,4],[0,1,1,2,3,3,1,3,4],[0,1,1,2,3,2,3,2,4],[0,2,2,4,4,4,4,4,8]], ] ] 
  [[0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,1,2,2,2,3,2,4],[0,1,1,2,2,3,2,3,4],[0,1,1,2,3,3,1,3,4],[1,1,1,3,2,1,4,2,4],[0,1,1,2,3,3,2,2,4],[0,2,2,4,4,4,4,4,8]], \\
  \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,1,2,2,2,2,3,4],[0,1,1,2,4,3,3,0,4],[0,1,1,2,3,3,2,3,4],[0,1,1,2,3,3,2,2,4],[1,1,1,3,0,2,2,5,4],[0,2,2,4,4,4,4,4,8] \end{bmatrix}, \\
  [[0,0,0,0,0,0,0,0,0,0],[0,0,2,2,2,2,2,3],[0,2,0,2,2,2,2,2,3],[0,2,2,4,4,4,4,4,4,7],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,8],[0,2,2,4,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0
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  \begin{bmatrix} [0,0,0,0,1,0,0,0,0], [0,1,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,1,1,2,3,2,2,2,4], [1,1,1,3,1,2,2,4,4], [0,1,1,2,2,2,3,3,4], [0,1,1,2,2,3,2,3,4], [0,1,1,2,4,3,3,0,4], [0,2,2,4,4,4,4,4,4,8] \end{bmatrix}, 
  [[0,0,0,0,0,1,0,0,0],[0,1,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,1,2,2,3,2,2,4],[0,1,1,2,2,2,3,3,4],[1,1,1,3,2,3,2,2,4],[0,1,1,2,3,2,2,3,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,3,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,3,2,2,4],[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,3,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1
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 \begin{bmatrix} [0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,2],[0,0,1,1,1,1,1,2],[0,1,1,2,2,2,2,3,4],[0,1,1,2,4,3,3,0,4],[0,1,1,2,3,2,3,2,4],[0,1,1,2,3,3,2,2,4],[1,1,1,3,0,2,2,5,4],[0,2,2,4,4,4,4,4,8],[0,0,0,0,0,0,0,0,0],[0,0,0,0,0,0],[0,0,2,2,2,2,2,2,3],[0,2,0,2,2,2,2,2,3],[0,2,2,4,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4,4,4],[0,2,2,4,4,4,4],[0,2,2,4,4,4,4],[0,2,2,4,4,4,4],[0,2,2,4,4,4],[0,2,2,4,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,2,4],[0,2,2,2,4],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2],[0,2,2,2],[
 [[0,0,1,0,0,0,0,0,0],[1,0,0,0,1,1,1,1,0],[0,1,0,0,0,0,0,0],[0,0,0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1],[0,0,1,1],[0,0,1,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[
  [[0,0,0,0,1,0,0,0,0],[0,1,0,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,2],[0,1,1,2,3,2,2,2,4],[1,1,1,3,2,2,2,3,4],[0,1,1,2,2,3,3,4],[0,1,1,2,2,3,2,3,4],[0,1,1,2,3,3,3,1,4],[0,2,2,4,4,4,4,4,8]], ] ] ] ] \\
  \begin{bmatrix} [0,0,0,0,0,1,0,0,0], [0,1,0,1,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,1,1,2,2,3,2,2,4], [0,1,1,2,2,2,3,3,4], [1,1,1,3,2,2,3,2,4], [0,1,1,2,3,3,1,3,4], [0,1,1,2,3,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,2,3,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,3,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2,2,2,4], [0,1,1,2
  \begin{bmatrix} [0,0,0,0,0,0,1,0,0], [0,1,0,1,1,1,1,1,2], [0,0,1,1,1,1,1,2], [0,1,1,2,2,2,3,2,4], [0,1,1,2,2,3,2,3,4], [0,1,1,2,3,3,1,3,4], [1,1,1,3,2,1,4,2,4], [0,1,1,2,3,3,2,2,4], [0,2,2,4,4,4,4,4,8] \end{bmatrix}, 
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   [[0,0,0,0,1,0,0,0,0],[0,0,0,0,0,0,0,1,1],[0,0,0,0,0,0,1,1],[0,0,0,0,0,1,0],[1,0,0,1,2,1,1,1,0],[0,0,0,0,1,2,2,1,1],[0,0,0,0,1,2,2,2,0],[0,1,1,1,1,1,1,2,4,4],[0,1,1,1,0,1,0,4,5]], \\
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   [[0,0,0,0,0,0,0,0,1,0],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,0,1,2,0,4,3],[0,0,1,2,0,4,3],[0,0,1,2,0,4,3],[0,0,1,2,0,4,3],[0,0,1,2,0,4,3],[0,0,1,2,0,4
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  #r9d7980t[[1,1],[19,2],[20,1],[21,1],[38,2],[42,2]]
  S7980b=[[
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   \begin{bmatrix} [0,0,0,1,0,0,0,0,0], [0,0,1,1,1,2,2,2,2], [0,1,0,1,1,2,2,2,2], [1,1,1,1,1,2,2,2,2], [0,1,1,1,2,2,2,2], [0,1,1,1,2,2,2,2], [0,2,2,2,2,3,4,4,4], [0,2,2,2,2,4,3,4,4], [0,2,2,2,2,4,4,5,4], [0,2,2,2,2,2,4,4,5,4], [0,2,2,2,2,2,4,4,5,4], [0,2,2,2,2,2,4,4,4,5] \end{bmatrix}, 
   [[0,0,0,0,1,0,0,0,0],[0,1,1,1,1,2,2,2,2],[0,1,1,1,1,2,2,2,2],[0,1,1,1,1,2,2,2,2],[0,1,1,1,1,2,2,2,2],[1,1,1,2,2,2,2,0,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,0,4,4,3,8],[0,2,2,2,4,4,4,4,8,1]], ] ] 
   [[0,0,0,0,0,1,0,0,0],[0,0,2,2,2,4,3,4,4],[0,2,2,2,2,3,3,4,4],[0,2,2,2,2,3,4,4,4],[0,2,2,2,2,4,4,4,4],[1,4,3,3,4,6,7,8,8],[0,3,3,4,4,7,6,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8]], [0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8,8],[0,4,4,4,4,8,8,8],[0,4,4,4,4,8,8,8],[0,4,4,4,4,8],[0,4,4,4,4,8],[0,4,4,4,4,8],[0,4,4,4,4,8],[0,4,4,4,4,8],[0,4,4,4,4,8],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4,4],[0,4
   [[0,0,0,0,0,0,0,0,1,0],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4,4,4],[0,2,2,2,2,4,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,4],[0,2,2,2,2,2],[0,2,2,2,2,4],[0,2,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2,2],[0,2,2],[0,2,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2,2],[0,2
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  \begin{bmatrix} [1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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#r9d8736t[[1,1],[12,3],[13,1],[14,1],[21,2],[84,1]]
[[0,1,0,0,0,0,0,0,0],[1,1,0,1,0,1,0],[0,1,0,1,1],[0,0,1,0,1,1],[0,1,0,0,1,1],[0,0,1,1],[0,0,1,1],[0,0,1,1],[0,0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
 \begin{bmatrix} [0,0,0,0,0,0,0,0,1,0],[0,1,1,1,1,1,0,1,2],[0,1,1,1,1,1,0,1,2],[0,1,1,1,1,1,0,1,2],[0,1,1,1,1,1,0,1,2],[0,1,1,1,1,1,1,0,2,2],[0,1,1,1,1,1,1,0,3,2],[0,0,0,0,0,0,0,0,0,0,0,3,3],[1,1,1,1,1,2,3,3,1,3],[0,2,2,2,2,2,3,3,18] \end{bmatrix}, 
#r10d720t[[1, 1], [4, 2], [5, 2], [9, 1], [10, 3], [16, 1]]
S720=[[
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0,0],[1,0,0,0,1,0],[0,0,0,0,0,0,0],[0,0,0,0,0,0],[0,1,0,0],[0,1,0,0,0],[0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[[0,0,0,1,0,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0,0],[0,0,1,1,0,0],[0,0,1,0,0,0,0,0],[1,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,1,0,1,1,1,1,1,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0,0],[0,1,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,1,0,1,0,1,1,1,1,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,0,0,0,0,1,1,0,1],[0,0,0,0,0,0,1,1,1],[0,0,0,0,1,1,1],[0,0,0,1,1],[0,0,0,1,1],[0,0,0,1,1],[0,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,1],[1,0,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,0],[1,
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[0,1,1,1,1,2,2,2,2,4]],
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[1,1,1,2,2,3,4,4,4,5]]
 [[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0
[0,0,0,0,0,0,0,0,0,0,1]],
[0,0,1,0,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[1,0,0,1,0,0,0],[0,0,1,0,0],[0,0,1,0,0],[0,0,0,0],[0,0,1,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,1,0,1,0,1,1,1,1,1]
[[0,0,0,1,0,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0,0],[0,0,1,1,0,0],[0,0,1,0,0,0,0,0],[1,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,1,0],[0,0,0,0,0,0,1],[0,0,0,0,1,0],[0,0,0,0],[0,1,0,1,0],[0,0,0,0],[0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0,1],[0,0,1,0],[0,1,0,1],[0,0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,
[0,1,0,1,0,1,1,1,1,2]],
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[0,1,1,1,1,2,2,2,2,3]],
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[0,0,1,1,1,1,1,1,1,3]],
[0,2,1,1,1,1,1,3,3,5]],
[[0,0,0,0,0,0],[0,1,0,0,0],[0,1,0,0,0],[0,1,0,0],[0,1,0,0],[0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1],[0,0,1],[0,1,1,1],[0,0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
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[0,0,1,1,1,1,1,1,1,3]],
```

[[0,0,0,0,0,1,0,0,0,0],[0,0,0,0,0,0,0,0,0,1,1,2],[0,0,1,0,0,1,1,1,1,1],[0,0,0,1,0,1,1,1,1,1],[0,0,0,0,1,1,1,1,1,1],[0,0,0,0,1,1,1,1,2,2,2,2,2,1],[0,0,1,1,1,2,3,2,2,1],[0,1,1,1,1,2,2,2,2,3,3],[0,1,1,1,1,2,2,3,2,3],[0,1,1,1,1,2,2,3,2,3],[0,1,1,1,1,2,2,3,2,3],[0,1,1,1,1,2,3,2,3,3],[0,1,1,1,1,1,3],[0,0,0,1,0,1,1,1,1,1],[0,0,0,0,1,1,1,1,1,1],[0,0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1],[0,0,0,1,1,1,1],[0,0,0,1,1,1],[0,0,0,1,1],[0,0,0,1,1],[0,0,0,1],[0,0,1,1],[0,0,0,1],[

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[[0,0,0,0,0,0,0,0,0,1,0],[0,0,1,1,1,1,1,1,1,0,2],[0,1,0,0,0,1,1,2,2,1],[0,1,0,0,0,1,1,2,2,1],[0,1,0,0,0,1,1,2,2,1],[0,1,1,1,1,1,2,2,3,2,3],[0,1,1,1,1,1,1,1,2,2,3,3,3],[0,1,2,2,2,3,3,4,1,5],[1,0,2,2,2,2,3,1,5,5],

[[0,0,0,0,0,0,0,0,0,0],[0,0,1],[0,0,0,0,0,0],[0,0,1],[0,0,0,0],[0,0,1],[0,0

[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0]

[0,2,1,1,1,1,1,3,3,5]],

[0,2,1,1,1,1,1,3,3,6]]

[0,2,1,1,1,3,3,5,5,4]],

[1,0,3,3,3,5,6,4,4,4]]

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[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0,0],[1,0,1,1,1,0,1,0],[0,1,0,0,0,0],[0,1,0,0,0,0,0],[1,0,1,0],[0,1,0,0,0,0],[1,0,1,1,1],[0,1,0,0,0],[0,1,0,0,0],[0,1,0,0,0],[0,1,0,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,
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[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,1,0],[0,0,1,0,1,0,1,0],[0,0,1,1,0],[0,0,0,1],[1,0,1,0,1,0],[1,0,1,0,0],[1,0,1,0,1,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0],[0,1,0,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
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[0,2,1,1,1,1,1,3,3,5]],
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[0,0,1,1,1,1,1,1,1,3]],
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[0,2,1,1,1,1,1,3,3,5]],
[[0,0,0,0,0,0,0,1,0,0,0],[0,1,0,0,0],[0,1,0,0,0,0,0,1,1,2],[0,0,0,1,1,1,1,1,1,1],[0,0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,2,2,3,2,2,1],[1,0,1,1,1,3,3,2,2,1],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3,3],[0,1,1,2,2,3,3],[0,1,1,2,2,3,3],[0,1,1,2,2,3,3],[0,1,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2,3],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,
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[0,0,0,0,0,2,2,2,2,0]],
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```

```
[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,1,0],[0,0,1,1,0],[0,0,1,1,0,0],[0,0,1,0,0],[1,0,0,1,1,1,0,0],[1,0,0,1],[0,0,0,1],[0,0,0,0],[0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,0,0,0],[0,1,1,1,1,1],[0,1,0,0,0],[0,1,1,0],[0,1,0,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,0],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1]
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[0,2,1,1,1,1,1,3,3,6]],
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[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,1,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,1,0],[0,0,1,1,0],[0,0,1,1,0,0],[1,0,1,0,0,1],[1,0,1,0,0,0],[0,0,0,1,1,0],[0,0,0,1],[1,0,1,0,0],[0,0,0,1],[1,0,1,0],[0,0,0],[0,1,1,1,1],[0,0,1,0,1],[0,0,1,1,1,1],[0,0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,1,0],[0,0,1,0,1,0],[0,0,1,0,1,0],[0,0,0,1],[1,0,1,0,0,0],[1,0,1,0,0],[0,0,0,1],[1,0,1,1,1,1],[0,0,0,0],[1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,0,0,0],[0,1,0,1,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
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[0,2,1,1,1,1,1,3,3,6]],
[0,2,1,1,1,3,3,5,5,4]],
[[0,0,0,0,0,0,0,0,0,0],[0,0,1],[0,0,0,0,0],[0,0,1],[0,0,0,1],[0,0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[1,0,3,3,3,5,6,4,4,4]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,0,0,0,0,0,0,0,0,1]],
[0,0,0,0,0,2,2,2,2,0]],
[[0,0,1,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,1],[0,1,0,1,1,0],[1,0,1,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,1,1,0,0],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0],[0,1,1,1],[0,1,0,0],[0,1,1,1],[0,1,0,0],[0,1,1,1],[0,1,0],[0,1,1,1],[0,1,0],[0,1,1,1],[0,1,0],[0,1,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1,1],[0,1,0],[0,1],[0,1,0],[0,1],[0,1,0],[0,1],[0,1,0],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,1,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,1],[0,0,0,1,1,0],[0,0,0,1],[1,0,1,0,0,0],[0,0,0,1],[0,0,1,0,1,0,1],[0,0,1,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,0,1,1,1,1,1,1,1,3]],
[[0,0,0,0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,1,0],[0,0,1,1,0],[0,0,1,1,0,0],[0,0,1,0,0],[0,0,1,0,0],[1,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,0,0,0],[1,1,1,1,1],[0,1,0,0,0],[1,1,1,1,1],[0,1,0,0],[1,1,1,1,1],[0,1,0,0],[1,1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1],[1,1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,
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11
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```

[0,1,1,2,2,2,2,2,2,2]],

```
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,3,1]],
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[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
[0,0,1,1,1,1,1,1,1,1],
[[0,0,0,1,0,0,0,0,0,0],[0,0,1,0,1,1,1,1,1],[0,1,0,0,1,1,1,1,1],[1,0,0,0,2,4,1,2,2,2],[0,1,1,2,2,0,2,2,2,2],[0,1,1,4,0,0,2,2,2,2],[0,1,1,1,2,2,2,2,2,2],[0,1,1,1,2,2,2,2,2,2],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,4,0]],
```

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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,3,2]],
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[0,1,0,1,1,1,1,1,1,1],
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[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
[0,1,1,2,2,2,2,2,2,2]],
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 [[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,0,0],[0,1,0,0,1],[1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[1,1,1],[0,1,0,1],[0,1,1,1],[0,1,0],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,1,4,2]]
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[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,4,2,2]],
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[
[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,4,4,0]],
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[0,1,1,2,2,2,2,4,3,1]],
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[0,1,1,2,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0],[0,0,0,1],[0,0,0,1,1],[1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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[0,1,1,2,2,2,2,3,2,3]],
[[0,0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,
[1,1,1,2,2,2,3,2,3,2]]
[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
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```

```
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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[0,1,1,2,2,2,2,2,2,2]],
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[[0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,4,2,2]],
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[1,1,1,2,2,2,3,0,2,5]]
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[0,0,0,0,0,0,0,0,0,0,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,2,2,3]]
[0,0,0,0,0,0,0,0,0,0,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,3,1]],
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[0,0,0,0,0,0,0,0,0,0,1]],
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1],[1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1]
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[0,1,1,2,2,2,2,3,3,2]],
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[0,1,1,2,2,2,2,4,4,0]],
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[1,1,1,2,2,2,3,0,2,5]]
[[1,0,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,0,0,0,0,0,0,0,1]],
\llbracket [0,1,0,0,0,0,0,0,0,0,0], \llbracket [0,0,1,1,1,1,0,0,0,0], \llbracket [1,0,0,0,0,0,0,0,1,1,1], \llbracket [0,0,1,0,1,1,1,1], \llbracket [0,0,1,1,1,1,1], \llbracket [0,0,1,1,1,1,1], \llbracket [0,0,0,1,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0], \llbracket [0,
[0,1,0,1,1,1,1,1,1,1]
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,1,4,2]]
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[0,1,1,2,2,2,2,2,2,2,2]],
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[1,1,1,2,2,2,3,2,2,3]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
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[0,1,0,1,1,1,1,1,1,1],
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[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,2,1,2,2,2,2],[1,0,0,0,4,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,1,2,2,2,2,2],[0,1,1,2,1,2,2,2,2],[0,1,1,2,1,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,1,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,3,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,2,3,2]]
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[1,0,0,0,1,5,1,2,2,2],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0],[0,0,0,1],[0,0,0,1,1],[1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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[0,1,1,2,2,2,2,4,4,0]],
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[0,1,0,1,1,1,1,1,1,1],
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[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,1,4]],
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[0,0,1,1,1,1,1,1,1,1],
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[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[1,0,0,0,1,5,1,2,2,2],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1,1,2],[0,1,1,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1]
[0,1,1,2,2,2,2,2,2,3]],
 \begin{bmatrix} [0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[
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[0,1,1,2,2,2,2,2,4,2]],
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[0,1,1,2,2,2,2,2,2,2]],
```

```
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,4,4,0]],
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[0,1,1,2,2,2,2,4,3,1]],
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[0,1,1,2,2,2,2,2,2,2],
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
 [[0,0,0,0,0,0,0,0],[0,1,0,0],[0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],
[0,1,1,2,2,2,2,3,3,2]],
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[0,1,1,2,2,2,2,3,2,3]],
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[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1],[0,1,0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,2,2,2,2],[1,0,0,2,2,2,1,2,2],[0,1,1,0,2,2,2,2,2],[0,1,1,2,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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[0,1,1,2,2,2,2,4,4,0]],
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[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
[0,1,0,1,1,1,1,1,1,1]
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1,1,0,0,0,0],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
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[[0,0,0,1,0,0,0,0,0,0],[0,0,1,0,1,1,1,1,1],[0,1,0,0,1,1,1,1,1],[1,0,0,2,2,2,1,2,2],[0,1,1,2,2,0,2,2,2,2],[0,1,1,2,0,2,2,2,2,2],[0,1,1,1,2,2,2,2,2,2],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,1,1,2,2,2,2,2,2,2]],
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 [[0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2
[0,1,1,2,2,2,2,4,3,1]],
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,4,2]],
 [[0,0,0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],
[0,0,0,0,0,0,0,0,0,0,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[1,1,1,2,2,2,3,0,1,6]
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[0,1,0,1,1,1,1,1,1,1],
\llbracket [[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,0,0],[0,1,0,0,1],[1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[1,1,1],[0,1,0,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1],[1,1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1]
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[0,1,1,2,2,2,2,2,2,2,2]],
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[1,1,1,2,2,2,3,2,3,2]
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[0,0,0,0,0,0,0,0,0,0,1]],
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[0,0,1,1,1,1,1,1,1,1],
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,2,2]],
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```

```
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
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[0,1,1,2,2,2,2,4,3,1]],
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[0,0,1,1,1,1,1,1,1,1]],
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[0,1,1,2,2,2,2,2,2,3]],
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[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
[0,1,1,2,2,2,2,2,2,2],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,2,2,2,2,2],[0,0,0,1,4,0,2,2,2,2],[1,1,1,1,1,0,4,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[
[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,4,4,0]],
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[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
[0,1,0,1,1,1,1,1,1,1],
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[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,3,1,4]],
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[0,0,0,0,0,0,0,0,0,0,1]],
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1],[1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[1,1,1],[0,1,0,1],[0,1,1,1],[0,1,0],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,2,2]],
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[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
[0,0,1,1,1,1,1,1,1,1],
[[0,0,0,1,0,0,0,0,0,0],[0,0,1,0,1,1,1,1,1],[0,1,0,0,1,1,1,1,1],[1,0,0,2,2,2,1,2,2],[0,1,1,2,1,1,2,2,2,2],[0,1,1,2,1,1,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,0,1,1,1,1,1,1,1]
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[0,1,1,2,2,2,2,3,3,2]],
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```

```
[1,1,1,2,2,2,3,2,3,2]
 [[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
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[0,1,1,2,2,2,2,2,2,2,2]
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[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[0,1,1,2,2,2,2,4,4,0]],
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[0,1,1,2,2,2,2,4,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,3,1,4]],
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[1,1,1,2,2,2,3,1,4,2]]
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,1,2,2,2,2],[1,1,1,1,1,1,1],[0,0,0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,2,2,3]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,0,1,1,1,1,1,1,1],
```

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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,0,1,1,1,1],[0,1,0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,2,2,2],[0,0,0,1,3,1,2,2,2],[1,1,1,1,1,1,1,1],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0],[0,0,0,1],[0,0,0,1,1],[1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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[0,1,1,2,2,2,2,4,4,0]],
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[0,1,0,1,1,1,1,1,1,1],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,3]],
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,0,1,1,1,1],[0,1,0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,2,2,2,2],[0,0,0,1,2,2,2,2],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,1,2,2],[0,1,1,2,2,1,2,2],[0,1,1,2,2,1,2],[0,1,1,2,2,1,2],[0,1,1,2,2,1,2],[0,1,1,2,2,1,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
[0,1,1,2,2,2,2,2,2,3]],
\llbracket [0,0,0,0,0,0,0,0,1,0,0], \llbracket [0,1,0,1,1,1,1,1,1,1,1,1], \llbracket [0,0,1,1,1,1,1,1,1], \llbracket [0,1,1,2,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2], \llbracket [1,1,1,2,2,2,2,3,0,3,4], \llbracket [0,1,1,2,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2,2], \llbracket [0,1,1,2,2,2,2], \llbracket [0,1,1,2,2,2,2], \llbracket [0,1,1,2,2,2], \llbracket [0,1,1,2,2,2], \llbracket [0,1,1,2,2,2], \llbracket [0,1,1,2,2,2], \llbracket [0,1,1,2,2,2], \llbracket [0,1,1,2,2], \llbracket [0,1,1,2,2], \llbracket [0,1,1,2,2], \llbracket [0,1,1,2,2], \llbracket [0,1,1,2], \llbracket [0,1,1,2]
 [[0,0,0,0,0,0,0,0,0,0],[0,1,0,1,1],[0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0
[0,1,1,2,2,2,2,4,2,2]],
[[0,0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,
[1,1,1,2,2,2,3,0,2,5]]
[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1,1,1],[0,1,0,1,1,1,1,0,0,0,0],[0,1,0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
[0,0,1,1,1,1,1,1,1,1],
[[0,0,0,1,0,0,0,0,0,0],[0,0,1,0,1,1,1,1,1],[0,1,0,0,1,1,1,1,1],[1,0,0,2,2,2,1,2,2],[0,1,1,2,1,1,2,2,2,2],[0,1,1,2,1,1,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,1,1,2,2,2,2],[1,1,1,1,2,2,2,2,2],[0,0,0,1,2,2,2,2,2],[0,1,1,2,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,1,4]],
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[1,1,1,2,2,2,3,2,2,3]]
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
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[0,1,1,2,2,2,2,4,4,0]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,3,2]],
```

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[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1]
[0,1,1,2,2,2,2,2,2,3]],
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[0,0,0,0,0,0,0,0,0,0,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,0,0,0,0,0,0,0,0,0,1]],
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[0,1,1,2,2,2,2,2,2,2],
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[0,0,1,1,1,1,1,1,1,1],
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[0,1,1,2,2,2,2,2,2,3]],
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[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1,1,0,0,0,0],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,0],[0,0,0,1],[0,0,0,1,1],[1,1,1,1],[0,0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
[[0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
[0,1,1,2,2,2,2,4,4,0]],
[[0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,4,2,2]],
 [[0,0,0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0
[1,1,1,2,2,2,3,0,2,5]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,0,0,0,0,0,0,0,1]],
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```

```
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
 \begin{bmatrix} [0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
[[0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[
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[1,1,1,2,2,2,3,1,4,2]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,0,0,0,0,0,0,0,1]],
[[0,1,0,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
[0,1,0,1,1,1,1,1,1,1]
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[0,0,1,1,1,1,1,1,1,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,0,1,1,1,1,1,1,1,1],
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[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[
[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,0,1,6]]
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,0,2,5]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
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[0,1,1,2,2,2,2,2,2,2,2]],
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[1,1,1,2,2,2,3,1,4,2]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,1,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,0,0,0,0,0,0,0,0,1]],
\llbracket [0,1,0,0,0,0,0,0,0,0,0], \llbracket [0,0,1,1,1,1,0,0,0,0], \llbracket [1,0,0,0,0,0,0,0,1,1,1], \llbracket [0,0,1,0,1,1,1,1], \llbracket [0,0,1,1,1,1,1], \llbracket [0,0,1,1,1,1,1], \llbracket [0,0,0,1,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1,1], \llbracket [0,1,0,1,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0,1], \llbracket [0,1,0], \llbracket [0,
[0,1,0,1,1,1,1,1,1,1]
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,2,2,3]]
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[0,1,1,2,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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[0,1,1,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,4,4,0]],
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[0,1,0,1,1,1,1,1,1,1],
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[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,1,1,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,3]],
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\llbracket [[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0],[1,1,1,1,1],[0,1,0,1,1,1],[0,1,0,0,0],[0,1,0,0,1],[1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[0,1,0,1],[1,1,1],[1,1,1],[0,1,0,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[1,1],[
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[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,3,0,2,5]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,0,0,0,0,0,0,0,0,0,1]],
[0,1,0,1,1,1,1,1,1,1],
```

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[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,1,4]],
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[1,1,1,2,2,2,3,2,2,3]]
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[0,1,1,2,2,2,2,4,3,1]],
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[0,0,1,1,1,1,1,1,1,1]],
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[0,1,1,2,2,2,2,2,2,2,2]],
```

```
 [[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
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[0,1,1,2,2,2,2,2,2,3]],
[[0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
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[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,0,0,0,0,0,0,0,1]],
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[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,4,0]],
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[[0,1,0,0,0,0,0,0,0],[0,0,1,1,1,1,1,0,0,0,0],[1,0,0,0,0,0,0,1,1,1],[0,0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,0,0,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,
[0,1,0,1,1,1,1,1,1,1],
[[0,0,1,0,0,0,0,0,0,0],[1,0,0,0,0,0,0],[1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,0],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1],[0,1,1,1],[0,1,0,1],[0,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[
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[[0,0,0,1,0,0,0,0,0,0],[0,0,1,0,1,1,1,1,1,1],[0,1,0,0,1,1,1,1,1,1],[1,0,0,2,2,2,1,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,1,1,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2,2],[0,1,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,2,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,1,2],[0,
[[0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,2,1,2,2,2,2],[0,0,0,1,2,2,2,2,2],[1,1,1,1,1,2,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,0,1,1,1,1,1],[0,1,0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,2,1,1,2,2,2,2],[1,1,1,1,1,2,2,1,2,2,2],[0,0,0,1,2,2,2,2,2],[0,1,1,2,2,1,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,0,0,1,0,0,0],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[1,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
 \begin{bmatrix} [0,0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2]
[0,1,1,2,2,2,2,4,3,1]],
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[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,4,2,2]],
```

```
[[0,0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,
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 [0,1,1,2,2,2,2,2,2,3]],
 [[0,0,0,0,0,0,0,0,1,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
 [0,1,1,2,2,2,2,4,4,0]],
  [[0,0,0,0,0,0,0,0,0],[0,1,0],[0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0
 [0,1,1,2,2,2,2,4,3,1]],
 [[0,0,0,0,0,0,0,0,0],[0,1,0,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,
 [1,1,1,2,2,2,3,0,1,6]
 [0,0,0,0,0,0,0,0,0,0,1]],
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 [0,1,1,2,2,2,2,2,2,2]],
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 [0,1,1,2,2,2,2,3,2,3]],
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 [1,1,1,2,2,2,3,2,3,2]]
]]
#r10d1716t[[1, 1], [11, 6], [12, 1], [13, 1], [26, 1]]
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[1,1,1,2,2,3,4,6,6,7]]
[0,0,0,0,0,0,0,0,0,0,1]],
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[[0,0,1,0,0,0,0,0,0,0],[0,0,0,0,1],[0,0,0,0,1],[1,0,0,0,0,0,1,1,0,0],[0,0,0,0,0,1,1,1],[0,1,0,0,0,0,0,1,1,1],[0,0,0,1,1,1],[0,0,1,1,0,0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1,1],[0,0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,
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## #r10d2640t[[1, 1], [11, 3], [15, 3], [16, 2], [33, 1]] S2640=[[ 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[0,1,0,0,2,2,2,2,2,6]],

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[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
[[0,0,0,0,0,0,0],[0,0,1,1],[1,1,1,1],[0,1,0,1],[0,1,0,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
[0,2,2,2,3,3,3,3,3,7]],
[1,6,6,6,6,6,6,7,7,12]]
 [[1,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],
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[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
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[0,2,2,2,3,3,3,3,3,7]],
[1,6,6,6,6,6,6,7,7,12]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[[0,1,0,0,0,0,0,0,0,0,0],[1,3,1,1,0,0,0,1,1,1],[0,1,3,0,1,1,1,1,1,0],[0,1,0,3,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1,1],[0,1,3,0,1,1,1,1,1],[0,1,3,0,1,1,1,1,1],[0,1,3,0,1,1,1,1,1],[0,1,3,0,1,1,1,1,1],[0,1,3,0,1,1,1,1,1],[0,1,3,0,1,1,1,1],[0,1,3,0,1,1,1],[0,1,3,0,1],[0,1,1,1,1],[0,1,3,0,1],[0,1,1,1,1],[0,1,3,0,1],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,3,0],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
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[0,0,1,0,2,2,2,2,2,6]],
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[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
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[0,1,0,0,2,2,2,2,2,6]],
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[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
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 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,1,1,1,1,1,1],[0,1,2,1,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1,1],[0,3,1,0,1,1,1,1,1,1,1],[0,3,1,0,1,1,1],[0,3,1,0,1,1,1],[0,3,1,0,1,1,1],[0,3,1,0,1,1,1],[0,3,1,0,1,1,1],[0,3,1,0,1,1],[0,3,1,0,1,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0,1],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3,1,0],[0,3
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[0,0,0,1,2,2,2,2,2,6]],
[0,2,2,2,3,3,3,3,3,6]],
 [[0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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[1,6,6,6,6,6,6,7,7,12]]
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[0,0,0,0,0,0,0,0,0,0,1]],
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[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,6]],
[0,2,2,2,3,3,3,3,3,7]],
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[0,1,2,1,2,2,2,2,2,5]],
\llbracket [0,0,0,1,0,0,0,0,0,0], \llbracket [0,0,1,0,1,1,1,1,1,1], \llbracket [0,1,0,0,1,1,1,1,1], \llbracket [1,0,0,2,0,0,0,1,1,2], \llbracket [0,1,1,0,1,1,1,1,1], \llbracket [0,1,0,1,1,1,1,1,1], \llbracket [0,1,1,1,1,1,1], \llbracket [1,0,0,2,0,0,0,1,1,2], \llbracket [0,1,1,1,1,1,1], \llbracket [0,1,0,1,1,1,1,1,1], \llbracket [0,1,0,0,1,1,1,1,1], \llbracket [0,1,0,0,1,1,1,1,1], \llbracket [0,1,0,0,1,1,1,1], \llbracket [0,1,0,0,1,1,1], \llbracket [0,1,0,0,1], \llbracket [0,1,0,0,1], \llbracket [0,1,0,0], \llbracket [0,1,1,1], \llbracket [0,1,0,0], \llbracket [0,1,1], \llbracket [0,1,0], \llbracket [0,1,1], \llbracket [0,1,0], \llbracket [0,1,1], \llbracket [0,1,0], \llbracket [0,1,1], \llbracket [0,1,0], \llbracket [0,1], \llbracket [1], \llbracket [1], [1], [1], [1], [1], [1]
[0,1,1,2,2,2,2,2,2,5]],
[0,2,2,2,3,3,3,3,3,6]],
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[0,2,2,3,3,3,3,4,5]],
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[1,3,2,5,5,6,6,6,5,13]]
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[0,2,2,3,3,3,3,3,4,6]],
[[0,0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,2,3],[0,0,1,1,1,1,1,1,2,3],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,
[0,3,3,4,4,4,4,4,5,6]],
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[1,3,3,5,5,6,6,6,6,12]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,0,0,0,0,0,0,0,0,0,1]],
 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1,0,1],[0,0,0,1,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1],[0,0,0,1,1,1,1],[0,0,0,1,1],[0,0,0,1,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0,1],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0
[0,1,1,2,2,2,2,2,3,3]],
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[0,1,1,2,2,2,2,2,3,3]],
[0,2,2,3,3,3,3,3,4,5]],
 \begin{bmatrix} [0,0,0,0,1,0,0,0,0,0], [0,0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1], [0,1,0,1,1,1,1,1,1,1,1], [0,1,1,1,1,1,1,1,1,1], [0,1,1,0,2,1,2,2,2,2,3], [1,1,1,2,1,1,2,3], [0,1,1,1,2,2,1,2,2,3], [0,1,1,2,1,1,2,2,2,3], [0,1,1,2,1,2,2,2,3], [0,1,1,2,1,2,2,2,3], [0,1,1,2,1,2,2,2,3], [0,1,1,2,1,2,2,2,3], [0,1,1,2,1,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,3], [0,1,1,2,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2]
[0,2,2,3,3,3,3,3,4,5]],
[0,2,2,3,3,3,3,3,4,6]],
[0,2,2,3,3,3,3,4,6]],
[0,2,2,3,3,3,3,3,4,6]],
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[0,3,3,4,4,4,4,4,5,6]],
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[1,3,3,5,5,6,6,6,6,12]]
[[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
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[0,2,2,3,3,3,3,3,4,6]],
 [[0,0,0,0,0,0,0,0,0,0,1,0],[0,1,0,1,1,1,1,1,1,2,3],[0,0,1,1,1,1,1,1,2,3],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,2,3,4],[0,1,1,2,2,2,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],
[[0,0,0,0,0,0,0,0,0,0],[0,1,1,2,2,2,2,2,3,3],[0,1,1,2,2,2,2,2,3,3],[0,2,2,3,3,3,3,3,4,5],[0,2,2,3,3,3,3,3,4,5],[0,2,2,3,3,3,3,3,4,6],[0,2,2,3,3,3,3,3,4,6],[0,2,2,3,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,3,4,6],[0,2,2,2,4,4],[0,2,2,2,4,4],[0,2,2,2,4,4],[0,2,2,2,4,4],[0,2,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,4],[0,2,2,
[1,3,3,5,5,6,6,6,6,12]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,0,0,0,0,0,0,0,0,1]],
 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,0,0,0,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1],[0,0,1,1],[0,0,1,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0,0,1],[0
[0,1,0,2,2,2,2,2,2,4]],
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[1,4,3,5,5,6,6,6,7,11]]
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```
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[0,0,0,0,0,0,0,0,0,0,1]],
[0,1,0,2,2,2,2,2,2,4]],
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[0,2,2,3,3,3,3,4,6]],
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[0,2,2,4,4,4,4,4,4,9]],
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[0,2,0,2,2,2,2,2,2,5]],
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[0,2,2,4,4,4,4,4,4,8]],
[0,2,2,4,4,4,4,4,4,8]],
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[0,2,0,2,2,2,2,2,2,5]],
[0,0,2,2,2,2,2,2,2,5]],
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[0,2,2,4,4,4,4,4,4,8]],
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[1,5,5,8,8,8,8,8,9,19]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,2,2,4,4,4,4,4,4,8]],
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[1,5,5,8,8,8,8,8,9,19]]
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[0,0,0,0,0,0,0,0,0,0,1]],
[0,2,0,2,2,2,2,2,2,5]],
 [[0,0,1,0,0,0,0,0,0,0],[0,0,0,1,1,1,1,1,1,1,0],[1,0,1,0,0,0,0,0,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,2],[0,1,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,0,1,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0,1],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0
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[0,2,2,4,4,4,4,4,4,8]],
[0,2,2,4,4,4,4,4,4,8]],
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 [0,1,0,1,0,0,1,0,1,1,1],[0,0,1,0,1,1,0,1,1,2,2],[0,1,1,1,1,1,1,1,1,1,2,1]],
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 [0,1,1,1,1,1,0,0,0,0,0,2],[0,1,1,1,1,1,1,0,0,1,3],[0,0,0,0,0,0,1,1,2,3,1]],
 [1,1,1,2,1,1,1,0,0,0,3],[0,1,2,1,2,2,1,0,0,2,4],[0,0,0,0,0,0,1,2,3,4,2]],
  [ [0,0,0,0,0,0,0,0,0,0,0,0,0,1,1], [0,0,0,0,0,0,0,1,1,2,1], [0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,0,1,1,2,2,1], [0,0,0,0,0,0,0,0,0,1,1,2,2], [0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0
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 [[1,0,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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```

### #r11d990t[[1,1], [9,5], [10,1], [11,4]]

## S990b=[[ [[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0[0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], 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$\begin{bmatrix} [1,0,0,0,0,0,0],0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0$ $\llbracket [0,1,0,0,0,0,0,0,0,0,0], \llbracket [1,1,1,1,0,1,0,1,0,1,1,1,1], \llbracket [0,1,1,0,1,0,1,0,1,1,1,1], \llbracket [0,1,0,0,0,1,1,1,1,1], \llbracket [0,1,0,0,0,1,1,1,1,1], \llbracket [0,1,0,1,0,1,1,1], \llbracket [0,1,0,1,0,1,1,1], \llbracket [0,1,1,1,1,1], \llbracket [0,1,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1,1], \llbracket [0,1,1,1], \llbracket [0,1,1], \llbracket [0,1,1], \llbracket [0,1,1], \llbracket [0,1,1], \llbracket [0,1,1], \llbracket [0,1], \llbracket [1,1], \llbracket [0,1], \llbracket [1,1], \llbracket [0,1], \llbracket [1,1], \llbracket [0,1], \llbracket [1,1], [$ [0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1]],[[0,0,1,0,0,0,0,0,0,0,0,0],[0,1,1,0,1,0,1,0,1,1,1,1],[1,1,1,1,1,0,0,1,1,1,1],[0,0,1,1,0,1,1,1],[0,0,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,0,0,0,1,1,1,1,1],[0,1,0,0,0,0],[0,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1]],[ [0,0,0,1,0,0,0,0,0,0], [0,1,0,0,1,1,1,1,1,1,1], [0,0,1,1,0,1,1,1,1,1], [1,0,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1],[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1]],[[0,0,0,0,1,0,0,0,0,0,0],[0,0,1,1,1,0,1,1,1,1],[0,1,1,0,0,1,1,1,1,1],[0,1,1,0,0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0[[0,0,0,0,0,1,0,0,0,0,0],[0,1,0,1,0,1,1,1,1],[0,1,1,1,1,1],[0,0,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0[0,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1]],[[0,0,0,0,0,0,1,0,0,0,0],[0,0,1,1,1,1,1],[1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1],[0,1,1],[0,1[0,1,1,1,1,1,1,1,1,2,1,1],[0,1,1,1,1,1,1,1,1,1,2,1],[0,1,1,1,1,1,1,1,1,1,1,2]],[0,1,1,1,1,1,1,1,1,2,2],[0,1,1,1,1,1,1,1,2,2,1],[0,1,1,1,1,1,1,2,2,1,1]],[1,1,1,1,1,1,2,1,2,1,1],[0,1,1,1,1,1,1,2,1,1,2],[0,1,1,1,1,1,1,1,2,1,2,1]],[0,1,1,1,1,1,1,2,1,1,2],[1,1,1,1,1,1,2,2,1,1,1],[0,1,1,1,1,1,1,1,1,2,1,2]],

[	0,1	,1,	1,1	1,1	,1,	2,1	,2,	1],[	0,1	,1,	1,1	,1,	1,1,	,2,1	1,2]	,[1	,1,	1,1,	1,1	,2,1	L,1,	2,1]	]																										
]	, [																																																
[	[1,	0,0	,0,	,0,	0,0	,0,	0,6	,0],	[0,	1,0	,0,	0,0	,0,6	0,0	,0,0	],[	0,0	,1,0	,0,	0,0	0,0	0,0,0	],[0,	0,0,	,1,0	,0,0	,0,0	,0,0	],[0	,0,0	0,0,1	,0,0	0,0,0	,0,0	],[0,	0,0,0	,0,1,	0,0,0,	0,0]	,[0,0	,0,0,	0,0,	1,0,0	,0,0	,[0,	0,0,0	,0,0,	0,1,6	0,0,0]
[	0,0	,0,	0,0	0,0	,0,	0,1	,0,(	9],[	0,0	,0,	0,0	,0,(	0,0,	,0,1	L,0]	,[0	,0,	0,0,	0,0	,0,0	0,0,	0,1]	],																										
[	[0,	1,0	,0,	,0,	0,0	,0,	0,0	,0],	[1,	1,1	,1,	0,1	,0,1	1,1,	1,1	],[	0,1	,1,0	,1,	0,1	1,1	.,1,1	.],[0,	1,0,	,0,1	, 1, 1,	,1,1	,1,1	],[0	,0,1	,1,1	,0,1	.,1,1	,1,1	],[0,	1,0,1	,0,1,	1,1,1,	1,1]	,[0,0	,1,1,	1,1,1	1, 1, 1	,1,1	,[0,	1, 1, 1	,1,1,	1,1,1	1, 1, 1]
Ĺ	0,1	,1,	1,1	1,1	,1,	1,1	,1,	1],[	0,1	,1,	1,1	,1,	1,1,	,1,1	1,1]	,[0	,1,	1,1,	1,1	,1,1	L,1,	1,1]	],																										
Ī	[0,	0,1	, 0,	,0,	0,0	,0,	9,0	,0],	[0,	1,1	,0,	1,0	,1,1	1,1,	, 1, 1	],[	1,1	, 1, 1	,1,	0,0	,1,1	.,1,1	.],[0,	0,1,	,1,0	,1,1,	,1,1	,1,1	],[0	,1,1	.,0,0	,1,1	.,1,1	,1,1	],[0,	0,0,1	,1,1,	1,1,1,	1,1]	,[0,1	,0,1,	1,1,	1,1,1	,1,1	,[0,	1,1,1	,1,1,	1,1,1	1,1,1]
Ĺ	0,1	,⊥,	۱,⊥	Ι,Ι	,⊥,	⊥,⊥	,⊥,.	ابلا	0,1	,⊥,	Τ,Τ	,⊥,.	Ι, Ι,	,⊥,⊥	L, I]	,[0	,⊥,	⊥,⊥,	1,⊥	, ⊥ , .	۱,⊥,	1,1]	],	0 1		1 0				1 0		0 1					0 0		<b>-</b>		1 0						1 1		<b>.</b>
Ļ	[U,	0,0	, L,	, 0 , 1	0,0	, () , (	9,0	,0],	[0,	1,0	,0,	1,1	,⊥,⊥	1, 1, 1, 1	,	. J , L	0,0	,	,0,	1, 1, 1, 1,	,	.,⊥,⊥	.],[⊥,	.0,⊥,	,	,⊥,⊍,	,⊥,⊥	,⊥,⊥	],[0	, 1,0	,⊥,⊥	,0,1	.,⊥,⊥	, ⊥, ⊥	],[0,	⊥,⊥,⊥	.,0,0,.	⊥,⊥,⊥,	⊥,⊥]	,[⊍,⊥	,⊥,⊍,	⊥,⊥,.	⊥,⊥,⊥	, <u>,</u> , <u>,</u> , <u>,</u>	,[0,	⊥,⊥,⊥	,⊥,⊥,	⊥,⊥,.	1, 1, 1
Ļ	U, 1	, L,	⊥,⊥	⊥,⊥ 1	, L,	Τ, Τ	, L , .	I I	0,1	, L,	1, L	,⊥,. 1 0	⊥,⊥, 1 1	,⊥,⊥ 1 1	⊥,⊥] 1 1	,[0	, L,	⊥,⊥,	Τ,Τ	,⊥,. 1 1	∟,⊥, 1 1	1,1]	],	1 0	1 1	0 1	1 1	1 1	1 [1	1 0	. 1 1	1 (	. 1 1	1 1	1 [0	0 1 0	. 1 1 .	1 1 1	1 11	<b>[</b> 0 1	1 1	0.1	1 1 1	1 1	<b>r</b> o .	1 1 1	1 1	1 1 1	1 1 1 <b>1</b>
L	[U, ∩ 1	1,0	1 1	, ⊥ , ¹ 1	ט,ט	, U , I 1 1	ָט, ט י	,⊍], 11 I	[U,	U, I	,	1,0	,⊥,⊥ 1 1	⊥,⊥, 1 1	,	. ] , [	U, I	,⊥,⊍ 1 1	1,0,	⊥,⊥, 1 1	,	$\begin{bmatrix} 1,1,1 \\ 1,1 \end{bmatrix}$	.],[⊍, 1	Ι, υ,	, ⊥ , ⊥	, ∪ , ⊥	, ⊥ , ⊥	, ⊥, ⊥	],[⊥	,⊥,⊍	, <b>,</b> , ,	, <u>,</u> , t	, ⊥, ⊥	, <b>,</b> , , ,	],[0,	∪,⊥,∪	, <b>,</b> , , , , ,	⊥,⊥,⊥,	⊥,⊥]	,[∪,⊥	,⊥,⊥,	U, I,	Ι, Ι, Ι	, ⊥, ⊥,	, [0,	⊥,⊥,⊥	, ⊥ , ⊥ ,	⊥,⊥,.	1, 1, 1
Ľ	ר, ט ה	,⊥, ດ ດ	Τ, Ι	ъ.	,⊥,. 1 0	т, т	י, בי, ה	01 1,[⊥	ום, ב	.,⊥, 1 0	1 1	,⊥,. 0.1	⊥,⊥, 1 1	,⊥,⊥ 1 1	∟,⊥] 1 1	, [U	, <sub>,</sub> ,	⊥,⊥, 1	1,1	,⊥,. 1 1	∟,⊥, 1 1	1 1	1 [0	1 1	1 0	0 1	1 1	1 1	1 [a	ω 1	ω 1	1 1	1 1	1 1	1 [1	1 1 0	111	3 1 1	1 11	<b>[</b> 0 1	1 1	1 0	1 1 1	1 1	<b>[</b> 0	1 1 1	1 1	1 1 1	1,1,1]
L	լս, Ո 1	1	1 1	, o , 1 1	1	, o , \ 1 1	1	, o,, 11 I	. LO,	1	, ±, ' 1 1	1	,	∸, ∸, 1 1	,	. ] , L	1	, 0 , 1 1 1	, ⊥, 1 1	∸, ∸, 1 1	,	1,1]	.」, L∪, 1	· · , · ,	, 1,0	, 0 , 1	, _ , _	, _ , _	1,[0	,0,1	.,0,1	, _ , _	·, +, +	, + , +	1, L⊥,	Ι,Ι,	', ±, ±, \	J, ±, ±,	⊥,⊥]	, [0, 1	, _ , _ ,	1,0,1	⊥,⊥,⊥	, _,	, [0,	⊥,⊥,⊥	, + , + ,	⊥,⊥,.	⊥,⊥,⊥]
ŗ,	[[]	0.6		0	n 1	0.	) () ) ()	 	[O	0 1	1	, ±,. 1 1	1 1	,	1 1	, L o	0 1	.,., 1	1	,	1 1	1 1	1, [0	1 1	0 1	1 1	1 1	1 1	1 [0	1 1	1 6	1 1	1 1	1 1	1 [0	1 1 1	1 0	1 1 1	1 11	<b>[</b> 1 1	1 1	1 1 .	1 1 1	1 1	[0]	1 1 1	1 1	1 2 .	1,1,1]
Ė	0, 0 1	1	1 1	1 1	1	1 2	1	, 11	0.1	1	1 1	1	,	1 2	11	. ] , [	1	, o , <sub>1</sub> 1 1	1 1	1 1	1 1	1,2]	1, [0,	,_,	, 0 , 1	, _ , _ ,	, _ , _	, _ , _	1,10	, _ , _	, _, 0	, _ , _	., ., .	, -,	1, [0,	_, _, _	, _, _,	-,-,-,	<b>-,</b> -]	, L + , +	, _ , _ ,	_,_,	_, _, _	, -,	, L · ,	-,-,-	, + , + ,	±, ∠, .	±, ±, ±]
ŗ	ΓΘ.	0.0	0	.0.	0.0	.1.(	9.0	.01.	[0]	1.1	.1.	1.1	.1.1	1.1.	.1.1	1.[	0.1	.1.1	.1.	1.1	1.1	.1.1	1.10.	1.1.	.1.1	.1.1	.1.1	.1.1	1.[0	.1.1	.1.1	.1.1	.1.1	.1.1	1.[0.	1.1.1	.1.1.	1.1.1.	1.11	. [0.1	.1.1.	1.1.	1.2.1	.1.1	.11.	1.1.1	.1.1.	2.1.	1,1,2]
																						2,0]		_,_,	, -, -,	, -, -,	, – , –	, - , -	1,10	, - , -	, -, -	, – , -	., -, -	, - ,	1, [ • ,	-,-,-	, -, -,	-,-,-,	_,,	, [ • , -	, -, -,	_,_,	_,_,_	, -,	, , , ,	-,-,-	, -, -,	_,_,	_,_,_
																								1,1,	,1,1	,1,1	,1,1	,1,1	1,[0	,1,1	,1,1	,1,1	,1,1	1.1	],[0,	1,1,1	,1,1,	1,1,1,	1,11	,[0,1	,1,1,	1,1,	1,1,2	,1,1	,[0,	1,1,1	,1,1,	1,1,1	1,2,2]
[	1,1	,1,	1,1	1,1	,2,	1,1	,2,	1],[	0,1	,1,	1,1	,1,	1,2,	,2,6	9,2]	,[0	,1,	1,1,	1,1	,1,2	2,1,	2,1]	],																										
[	[0,	0,0	,0,	0,	0,0	,0,	9,1	,0],	[0,	1,1	,1,	1,1	,1,1	1,1,	,1,1	],[	0,1	,1,1	,1,	1,1	1,1	,1,1	],[0,	1,1,	,1,1	,1,1	,1,1	,1,1	],[0	,1,1	,1,1	,1,1	,1,1	,1,1	],[0,	1,1,1	,1,1,	1,1,1,	1,1]	,[0,1	,1,1,	1,1,1	1,1,1	,2,1	,[0,	1,1,1	,1,1,	1,1,2	2,1,2]
[(	0,1	,1,	1,1	1,1	,1,	2,2	,0,2	2],[	1,1	,1,	1,1	,1,2	2,1,	,0,3	[3,1]	,[0	,1,	1,1,	1,1	,1,2	2,2,	1,1]	],																										
																								1,1,	, 1, 1,	,1,1,	, 1, 1	,1,1	],[0	,1,1	,1,1	,1,1	.,1,1	,1,1	],[0,	1, 1, 1	,1,1,	1,1,1,	1,1]	,[0,1	,1,1,	1,1,1	1, 1, 1	,1,2	,[0,	1, 1, 1	,1,1,	1,2,2	2,2,0]
		,1,	1,1	1,1	,1,	2,1	,2,	1],[	0,1	,1,	1,1	,1,	1,2,	,2,1	1,1]	,[1	,1,	1,1,	1,1	,2,6	9,1,	1,3]	]																										
	],																																							• • •					•				
Ţ	[1,	0,0	,0,	,0,	0,0	,0,(	9,0	,0],	[0,	1,0	,0,	0,0	,0,6	0,0,	.0,0	],[	0,0	,1,0	,0,	0,0	,0,0	0,0,0	)],[0,	0,0,	,1,0	,0,0	,0,0	,0,0	],[0	,0,0	,0,1	,0,0	0,0,0	,0,0	],[0,	0,0,0	0,0,1,	0,0,0,	0,0]	,[0,0	,0,0,	0,0,	1,0,0	,0,0	,[0,	0,0,0	,0,0,	0,1,6	0,0,0]
Ĺ	0,6	,0,	0,0	0,0	,0,(	0,I	,0,(	ا,[ك	0,0	,0,	0,0	,0,(	0,0,	,0,	L,0]	,[0	,0,	0,0,	0,0	,0,6	9,0,	0,1]	],	1 0	0 1	1 1	1 1	1 1	1 [0	0 1	1 1	0 1	1 1	1 1		1 0 1	0 1		1 11	<b>r</b> 0 0	1 1	1 1	1 1 1	1 1.	<b>r</b> 0	1 1 1	1 1	1 1 .	1 1 1 <b>1</b>
L	[U,	1,0	1,0	, 0 , 1	0,0	, () , (	J , U	,⊍],	L1,	1, L	, <u>,</u> , ,	U, I	,⊍,⊥	1, 1, 1, 1	,	. J , L	0, I	, I, U	, <u>,</u> ,	U, L,	,	., L, L	.],[0,	Ι, Ο,	,0,⊥	, ⊥, ⊥,	,⊥,⊥	,⊥,⊥	],[0	,0,⊥	.,⊥,⊥	.,⊍,⊥	.,⊥,⊥	, ⊥, ⊥,	],[⊍,	⊥,⊍,⊥	.,⊍,⊥,.	⊥,⊥,⊥,	⊥,⊥]	,[0,0	,⊥,⊥,	⊥,⊥,.	⊥,⊥,⊥	, ⊥, ⊥.	,[0,	⊥,⊥,⊥	,⊥,⊥,	⊥,⊥,.	1, 1, 1
Ľ	U, 1	,⊥, ∩ 1	Ι,Ι	Ι, Ι	, L , .	Τ, Τ	,⊥,. ```	⊥],  1,[⊥	0,1	, L,	т,т	,⊥,. 1 ∩	⊥,⊥, 1 1	,⊥,」 1 1	۱,⊥] 1 1	, [U	,⊥,. 1 1	⊥,⊥, 1 1	1,1	, L , .	∟,⊥, 1 1	1,1]	],	0 1	1 0	1 1	1 1	1 1	1 [0	1 1	0 0	1 1	1 1	1 1	1 <b>r</b> o	0 0 1	1 1 .	1 1 1	1 11	<b>r</b> 0 1	0 1	1 1	1 1 1	1 1	<b>r</b> o .	1 1 1	1 1	1 1 1	1 1 1 <b>1</b>
L	[ს, ი 1	ע, ט 1	, ט, 1 1	י, ט, 1 1	ט,ט 1	, ט, ו 1 1	ָט, ט 1	,[ט, 11 I	[U,	⊥,⊥ 1	,ປ, 1 1	1	,⊥,⊥ 1 1	⊥,⊥, 1 1	,	_] , [ -	⊥,⊥ 1	,⊥,⊥ 1 1	,⊥, 1 1	1 1	,	1,1	.],[U, 1	θ,Ι,	, 1,0	, ⊥ , ⊥ ,	, ⊥, ⊥	,⊥,⊥	],[0	, ⊥, ⊥	.,0,0	,⊥,⊥	., ⊥, ⊥	, ⊥ , ⊥	],[⊍,	0,0,1	, <b>,</b> , , , ,	⊥,⊥,⊥,	⊥,⊥]	,[∪,⊥	,0,⊥,	⊥,⊥,.	⊥,⊥,⊥	, <b>,</b> , , ,	,[0,	⊥,⊥,⊥	, ⊥, ⊥,	⊥,⊥,.	1,1,1]
																								o 1	1 1	1 0	1 1	1 1	<b>1</b> [0	1 0	1 1	o 1	1 1	1 1	<b>1</b> [0	1 1 1	0 0	1 1 1	1 11	<b>[</b> 0 1	1 0	1 1 .	1 1 1	1 1	<b>[</b> 0	1 1 1	1 1	1 1 1	1,1,1]
Ľ	LU, O 1	1	1 1	, o , <sub>'</sub> 1 1	1	, o , \ 1 1	1	, o,, 11 I	0.1	1	, o , . 1 1	1	,	∸, ∸, 1 1	,	. ] , L	1	,	1 1	∸, ∸, 1 1	,	1,1]	.」, L⊥, ]	υ, Ι,	, _ , _ ,	, 1,0	, _ , _	, _ , _	1,10	, 1,0	, <sub>+</sub> , <sub>+</sub>	,0,1	·, +, +	, _ ,	1,[∪,	⊥,⊥,⊥	.,0,0,	⊥,⊥,⊥,	⊥,⊥]	, [0, 1	, 1, 0,	⊥,⊥,.	⊥,⊥,⊥	, _ ,	, [0,	⊥,⊥,⊥	, + , + ,	⊥,⊥,.	⊥,⊥,⊥]
ŗ	[0]	0.0	.0.	.1.	0 0	.0.(	9.0	01	[0]	0.1	.1.	1.0	.1.1	1.1	1.1	1.1	0.1	.1.0	.0.	1.1	1.1	.1.1	1.[0.	1.0.	.1.1	.0.1	.1.1	.1.1	1.[1	.1.0	.1.1	.1.6	.1.1	.1.1	1.[0.	0.1.0	).1.1. <sup>1</sup>	1.1.1.	1.11	<b>[</b> 0.1	.1.1.	0.1.	1.1.1	.1.1	.[0.	1.1.1	.1.1.	1.1.1	1,1,1]
ř	0.1	1	1.1	1.1	1	1.1	1	11. I	0.1	1.	1.1	1	1.1	.1.1	L.11	. [0	1.	1.1.	1.1	.1.1	L.1.	1,1]	1.	_, _, _,	, _ , _ ,	, 0, 1	, _ , _	, _ , _	1/1-	, _, 0	, -, -	, -, -	, _, _	, _,	1, [ 0,	0, 1, 0	, _, _,	-,-,-,	_,	, [0, 1	, _ , _ ,	0,1,	-,-,-	, -,	, [ - ,	-,-,-	, _ , _ ,	-,-,-	_,_,_
ŗ	ΙO.	0.0	0	0	1.0	.0.	9.0	.01.	[0.	1.0	.1.	0.1	.1.1	1.1	1.1	1,1	0.0	.0.1	.1.	1.1	1.1	.1.1	.i.[0.	1.1.	.1.0	.0.1	.1.1	.1.1	1,[0	.0.1	.0.1	.1.1	.1.1	1.1	1.[1.	1.1.0	.1.1.	9.1.1.	1.11	.[0.1	.1.1.	1.0.	1.1.1	.1.1	.[0,	1.1.1	.1.1.	1.1.1	1,1,1]
																						1,1]		, ,	, , .	, - , .			.,.	, - ,	, - ,				.,.,	, ,			, -			, - ,		, , .	, ,	, ,		, ,	, , _
Ī	[0,	0,0	0,	0,	0,1	,0,	0,0	,0],	[0,	0,1	,1,	1,1	,1,1	1,1,	1,1	],[	0,1	,0,1	,1,	1,1,	1,1	,1,1	],[0,	1,1,	,0,1	,1,1,	,1,1	,1,1	],[0	,1,1	,1,0	,1,1	,1,1	,1,1	],[0,	1,1,1	,1,0,	1,1,1,	1,1]	,[1,1	,1,1,	1,1,	1,1,1	,1,1	,[0,	1,1,1	,1,1,	1,2,3	1, 1, 1]
[	0,1	,1,	1,1	1, 1	,1,	1,2	,1,:	1],[	0,1	,1,	1,1	,1,	1,1,	,1,2	[2,1]	,[0	,1,	1,1,	1,1	,1,1	L,1,	1,2]	],																										
[	[0,	0,0	,0,	,0,	0,0	,1,	0,6	,0],	[0,	1,1	,1,	1,1	,1,1	1,1,	,1,1	],[	0,1	,1,1	,1,	1,1,	1,1	.,1,1	],[0,	1,1,	,1,1	,1,1,	,1,1	,1,1	],[0	,1,1	,1,1	,1,1	.,1,1	,1,1	],[0,	1,1,1	,1,1,	1,1,1,	1,1]	,[0,1	,1,1,	1,1,1	1,2,1	,1,1]	,[1,	1, 1, 1	,1,1,	2,2,3	1, 1, 1]
[	0,1	,1,	1,1	1,1	,1,	1,1	,2,2	2],[	0,1	,1,	1,1	,1,	1,1,	,2,1	L,2]	,[0	,1,	1,1,	1,1	,1,1	L,2,	2,1]	],																										
[	[0,	0,0	,0,	,0,	0,0	,0,	1,0	,0],	[0,	1,1	,1,	1,1	,1,1	1,1,	, 1, 1	],[	0,1	, 1, 1	,1,	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	, 1, 1	.,1,1	.],[0,	1,1,	, 1, 1,	, 1, 1,	,1,1	,1,1	],[0	,1,1	.,1,1	,1,1	.,1,1	, 1, 1	],[0,	1, 1, 1	,1,1,	1,1,1,	1,1]	,[0,1	,1,1,	1,1,1	1,1,2	,1,1	,[0,	1, 1, 1	,1,1,	1,1,1	1,2,2]
[	$^{1,1}$	,1,	1,1	1,1	,2,	1,2	,1,:	1],[	0,1	,1,	1,1	,1,	1,2,	,1,1	1,2]	,[0	,1,	1,1,	1,1	, 1, 2	2,1,	2,1]	],																										
[	[Θ,	0,0	,0,	,0,	0,0	,0,(	0,1	,0],	[0,	1,1	,1,	1,1	,1,1	1,1,	1,1	] بِ [	0,1	,1,1	,1,	1,1	1,1	,1,1	.],[0,	1,1,	, 1, 1,	,1,1,	,1,1	,1,1	],[0	,1,1	,1,1	,1,1	.,1,1	,1,1	],[0,	1,1,1	,1,1,	1,1,1,	1,1]	,[0,1	,1,1,	1,1,1	1, 1, 1	,2,1	,[0,	1,1,1	,1,1,	1, 1, 2	2,1,2]
																						1,1]		1 1	1 1	1 1	1 7	1 1	1 [0	1 1	1 1	1 1	1 1	1 1	1 [0	1 1 1	1 1 .	1 1 1	1 11	[O ]	1 1	1 1	1 1 1	1 2	[0]	1 1 1	1 1	1 1 1	2 2 1 <b>1</b>
L	[⊍,	0,0	1 0	, U , I	Ü, ن ٔ 1	,⊍,( ⊃ 1	ָט, נ	, [], 11	[0,	1, L	,⊥,. 1 1	⊥,⊥ 1	,⊥,⊥ 1 ⊃	⊥,⊥, 1	,	.],[ []	۱,⊍	,⊥,⊥ 1 1	,⊥, 1 1	1, 1,	,	.,⊥,⊥ 1 ⊃1	.],[U, 1	Ι, Ι,	,⊥,⊥,	,⊥,⊥,	,⊥,⊥	,⊥,⊥	],[0	,⊥,⊥	.,⊥,⊥	,⊥,⊥	.,⊥,⊥	,⊥,⊥	],[⊍,	⊥,⊥,⊥	, <b>,</b> , , , ,	⊥,⊥,⊥,	⊥,⊥]	,[⊍,⊥	,⊥,⊥,	⊥,⊥,.	⊥,⊥,⊥	,⊥,∠	,[⊍,	⊥,⊥,⊥	,⊥,⊥,	⊥,⊥,∠	2,2,1]
		,⊥,	⊥,⊥	⊥,⊥	, <b>.</b> , .	∠,⊥	, ∠ , .	ا,[⊥	υ,1	,⊥,	⊥,⊥	, <b>.</b> , .	⊥,∠,	, ∠, -	⊥,⊥]	, [ <del> </del>	, 1,	⊥,⊥,	⊥,⊥	, 4 , -	∟,⊥,	1,2]	1																										
]	1																																																

# #r11d2184t[[1, 1], [6, 2], [7, 2], [12, 2], [13, 1], [14, 1], [24, 1], [28, 1]]

S2184b=[[ [[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[[0,0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,1]],[ [0,1,0,0,0,0,0,0,0], [1,0,0,0,1,0,0,0,0,0], [0,0,0,0,0,1], [0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0,0], [0,0], [[0,0,0,1,0,0,1,1,0,1,1],[0,0,1,0,1,1,1,1,1,1,2],[0,1,0,1,0,1,1,1,1,2,2]],[[0,0,1,0,0,0,0,0,0],[0,0,0,0,0,1,0],[1,0,0,1,0],[1,0,0,1,0,0,0],[0,0,1,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[ [0,1,0,0,0,1,0,0,2,1,1],[0,0,1,0,1,1,1,1,1,2,2],[0,1,0,1,0,1,1,1,1,2,3]],[ [0,0,0,0,1,0,0,0,0,0,0], [0,1,0,0,0,1,0], [0,0,0,0,0,0,0,0,0], [0,0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0], [0,[0,0,1,0,0,1,0,0,2,1,1], [0,1,0,1,0,1,1,1,1,2,2], [0,0,1,0,1,1,1,1,1,2,3]], $\begin{bmatrix} [0,0,0,0,0,1,0,0,0,0,0], [0,0,0,0,1,0,0,1,0], [0,0,0,1,0,0], [0,0,0,1,0], [0,0,0,1,0], [0,0,0,1,0], [0,0,0,1,0], [0,0,0,0], [0,0], [$ [[0,0,0,0,0,0,1,0,0,0,0],[0,0,1,0,0,0,0,0,1,1,1],[0,1,0,0,0,0,0,0,1,1,1],[0,0,0,0,0,1,1,0],[0,0,0,1,0,0],[0,0,1,0,0,2,2,2],[1,0,0,1,1,0,1,1,0,2,2],[0,0,0,1,1,0,1,2,0,2,2],[0,1,1,1,1,1,2,2,2,2,2,4],[0,1,1,1,1,2,2,2,2,4,4]],
[[0,0,0,0,0,0,0,0,1,0,0,0],[0,0,0,0,1,0,0,1,1,1],[0,0,0,0,0,1,1,0],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1,1],[0,0,0,1,1,0,1],[0,0,0,1,1,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0 [0,1,1,0,0,2,0,0,3,2,2],[0,1,1,1,1,2,2,2,2,3,4],[0,1,1,1,1,2,2,2,2,4,5]],[ [0,0,0,0,0,0,0,0,0,0,1,0,0], [0,0,0,1,0,0,1,1,0,1,1], [0,0,0,0,1,0,1,1], [0,1,0,0,0,1,0], [0,0,0,1,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0], [0,[1,0,0,2,2,0,2,3,0,2,2],[0,1,1,1,1,2,2,2,2,4,4],[0,1,1,1,1,2,2,2,2,4,6]],

```
[0,1,1,1,1,2,2,2,2,4,4],[1,1,1,2,2,2,2,3,4,7,8],[0,2,2,2,2,4,4,4,4,8,8]],
[0,1,1,1,1,2,2,2,2,4,6],[0,2,2,2,2,4,4,4,4,8,8],[1,2,2,3,3,4,4,5,6,8,10]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,0,0,0,0,0,1,0,0],[0,0,0,0,0,0,0,0,1,0],[0,0,0,0,0,0,0,0,0,0,0]],
 [ [0,1,0,0,0,0,0,0,0], [1,0,0,0,1,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
[0,0,0,1,0,0,1,1,0,1,1],[0,0,1,0,1,1,1,1,1,1,2],[0,1,0,1,0,1,1,1,1,2,2]],
 [ [0,0,1,0,0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0], [1,0,0,1,0], [0,0,1,0,0,1], [0,0,1,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
[0,0,0,0,1,0,1,1,0,1,1],[0,1,0,1,0,1,1,1,1,1,2],[0,0,1,0,1,1,1,1,1,2,2]],
[0,1,0,0,0,1,0,0,2,1,1],[0,0,1,0,1,1,1,1,1,2,2],[0,1,0,1,0,1,1,1,1,1,2,3]],
[[0,0,0,0,1,0,0,0,0,0,0],[0,1,0,0,0,1,0],[0,1,0,0,0,1,0],[0,0,0,0,0,0,0,0],[0,1,0,0],[0,0,0,0,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0],[0,1,0]
[0,0,1,0,0,1,0,0,2,1,1],[0,1,0,1,0,1,1,1,1,2,2],[0,0,1,0,1,1,1,1,1,2,3]],
[[0,0,0,0,0,1,0,0,0,0,1],[0,0,0,0,1,0],[0,0,0,0,1,0,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,1,0],[0,0,1,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,1,1,0,2,2,0,2,2],[0,1,1,1,1,1,1,2,2,3,4],[0,1,1,1,1,2,2,2,2,4,4]],
 [ [0,0,0,0,0,0,1,0,0,0,0], [0,0,1,0,0,0,0,0,1,1,1], [0,1,0,0,0,0,0,0,1,1,1], [0,0,0,0,1,0,1,1], [0,0,0,1,1,0,1,1], [0,0,0,1,1,1], [0,0,0,0,1,1], [0,0,0,0,1,1], [0,0,0,0,1], [0,0,1,1,1], [0,0,0,0,1], [0,0,1,1], [0,0,0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0,1], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
[0,1,1,0,0,2,0,0,2,2,2],[0,1,1,1,1,1,1,2,2,3,4],[0,1,1,1,1,2,2,2,2,4,4]],
[[0,0,0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,1,1,0,0,2,0,0,3,2,2],[0,1,1,1,1,2,2,2,2,3,4],[0,1,1,1,1,2,2,2,2,4,5]],
 [ [0,0,0,0,0,0,0,0,0,0,1,0,0], [0,0,0,1,0,0,1,1,0,1,1], [0,0,0,0,1,0,1,1], [0,1,0,0,0,1,0], [0,0,0,1,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0,1], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
[1,0,0,2,2,0,2,3,0,2,2],[0,1,1,1,1,2,2,2,2,4,4],[0,1,1,1,1,2,2,2,2,4,6]],
[0,1,1,1,1,2,2,2,2,4,4],[1,1,1,2,2,3,3,3,4,6,8],[0,2,2,2,2,4,4,4,4,8,8]],
[0,1,1,1,1,2,2,2,2,4,6],[0,2,2,2,2,4,4,4,4,8,8],[1,2,2,3,3,4,4,5,6,8,10]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,0,0,0,0,0,0,0,1,0,0],[0,0,0,0,0,0,0,0,1,0],[0,0,0,0,0,0,0,0,0,0,0]],
[[0,1,0,0,0,0,0,0,0,0],[1,0,0,0,1,0],[0,0,0,0,0,0],[1,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0]
[0,0,0,1,0,0,1,1,0,1,1],[0,0,1,0,1,1,1,1,1,1,2],[0,1,0,1,0,1,1,1,1,1,2,2]],
 [ [0,0,1,0,0,0,0,0,0,0], [0,0,0,0,0,0], [0,0,0,0,0,0], [1,0,0,1,0], [0,0,1,0,0,0], [0,0,0,0,0], [0,0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0,0], [0,0], [0,0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [0,0], [
[0,0,0,0,1,0,1,1,0,1,1],[0,1,0,1,0,1,1,1,1,1,2],[0,0,1,0,1,1,1,1,1,2,2]],
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[[0,0,0,0,0,1,0,0,0,0,1],[0,0,0,0,1],[0,0,0,0,1,0,0,1,0],[0,0,0,0,1,0,0,1],[0,0,0,1,0,0,1],[0,0,1,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
[0,0,0,1,1,0,2,2,0,2,2],[0,1,1,1,1,0,0,2,2,4,4],[0,1,1,1,1,2,2,2,2,4,4]],
[[0,0,0,0,0,0,1,0,0,0,0],[0,0,1,0,0,0,0,0,1,1,1],[0,1,0,0,0,0,0,0,1,1,1],[0,0,0,0,1,0,1,1],[0,0,0,1,0,0,1,1],[0,0,0,0,1,1],[0,0,0,0,0,1,1],[0,0,0,0,0,0,1],[0,0,0,0,0,1],[0,0,0,0,0,1],[0,0,0,0,0,1],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,1,1,0,0,2,0,0,2,2,2],[0,1,1,1,1,0,0,2,2,4,4],[0,1,1,1,1,2,2,2,2,4,4]],
[[0,0,0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[0,1,1,0,0,2,0,0,3,2,2],[0,1,1,1,1,2,2,2,2,3,4],[0,1,1,1,1,2,2,2,2,4,5]],
[[0,0,0,0,0,0,0,0,0],[0,0,0,1,0,0],[0,0,0,1,0,0,1,1],[0,0,0,0,1,0,1,1],[0,1,0,0,1],[0,1,0,0,1,0],[0,0,0,1,0,0],[0,0,0,1,0],[0,0,0,1,0],[0,0,0,1],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[
[1,0,0,2,2,0,2,3,0,2,2],[0,1,1,1,1,2,2,2,2,4,4],[0,1,1,1,1,2,2,2,2,4,6]],
[0,1,1,1,1,2,2,2,4,4],[1,1,1,2,2,4,4,3,4,5,8],[0,2,2,2,2,4,4,4,4,8,8]],
[0,1,1,1,1,2,2,2,2,4,6],[0,2,2,2,2,4,4,4,4,8,8],[1,2,2,3,3,4,4,5,6,8,10]]
#r11d2448t[[1, 1], [9, 2], [16, 4], [17, 1], [18, 3]]
                                                                                       \#d=[0,1,2,3,4,5,6,7,8,9,10]
[[1,0,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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```

```
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[0,1,1,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,2,3,2,2],[1,1,1,2,2,2,2,3,3,2,2]]
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[[0,0,0,0,1,0,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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[1,2,2,2,2,2,2,3,6,0,0],[0,1,1,2,2,2,2,2,0,4,4],[0,1,1,2,2,2,2,2,2,0,4,4]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
[1,2,2,2,2,2,3,6,0,0],[0,1,1,2,2,2,2,2,0,4,4],[0,1,1,2,2,2,2,2,0,4,4]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,3,3],[0,1,1,2,2,2,2,2,2,3,3]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,2,2,2,2,2,2,2,0,4,3],[0,1,1,2,2,2,2,2,4,0,4],[1,1,1,2,2,2,2,3,3,4,0]]
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[0,1,1,2,2,2,2,2,4,0,4],[1,2,2,2,2,2,2,3,0,6,0],[0,1,1,2,2,2,2,2,2,4,0,4]],
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[0,2,2,2,2,2,2,3,4,0],[0,1,1,2,2,2,2,4,0,4],[1,1,1,2,2,2,2,3,0,4,3]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,2,3,2,3,2],[0,1,1,2,2,2,2,2,3,2,3],[0,2,2,2,2,2,2,2,2,3,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,3]],
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[1,1,1,2,2,2,2,3,4,3,0],[0,1,1,2,2,2,2,2,3,2,3],[0,2,2,2,2,2,2,2,2,3,4]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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```
[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
 [[0,0,0,0,0,0,0,0,0],[0,1,0,0],[0,1,0,1,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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[0,2,2,2,2,2,2,2,4,1],[0,1,1,2,2,2,2,4,0,4],[1,1,1,2,2,2,2,3,1,4,2]]
[[1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[1,2,2,2,2,2,3,1,3,2],[0,1,1,2,2,2,2,2,3,1,4],[0,1,1,2,2,2,2,2,2,4,2]],
[0,1,1,2,2,2,2,3,1,4],[1,2,2,2,2,2,2,3,1,3,2],[0,1,1,2,2,2,2,2,4,2,2]],
[0,1,1,2,2,2,2,2,2,4,2],[0,1,1,2,2,2,2,4,2,2],[1,2,2,2,2,2,2,3,2,2,2]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,0,0,0,0,0,0],[1,1,1,1],[0,0,0,1,1,1,1],[0,0,0],[0,0,1,1,1,1],[1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,2,3,0,4],[1,1,1,2,2,2,2,3,3,4,0]]
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0]] ], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,3,3,2],[0,1,1,2,2,2,2,2,3,3,2],[1,2,2,2,2,2,2,2,3,2,2,2]]
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1]
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,2,3,4,0],[1,1,1,2,2,2,2,3,3,0,4]]
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,2,2,2,2,2,2,3,4,0],[0,1,1,2,2,2,2,4,0,4],[1,1,1,2,2,2,2,3,0,4,3]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
```

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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,0,4,4],[1,1,1,2,2,2,2,3,4,2,1],[0,2,2,2,2,2,2,2,2,4,1,2]],
 [ [0,0,0,0,0,0,0,0,0,0], [0,1,0,1,1,1,1,1,1,2,1], [0,0,1,1,1,1,1,1,2,1], [0,1,1,2,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,
[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,1,2],[1,1,1,2,2,2,2,2,3,4,2,1]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
 [[0,1,0,0,0,0,0,0,0,0],[1,1,0,0,0,0,0],[1,1,1,1],[0,0,0,1,1,1,1],[0,0,0],[0,0,1,1,1,1],[1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[1,2,2,2,2,2,2,3,6,0,0],[0,1,1,2,2,2,2,2,0,4,4],[0,1,1,2,2,2,2,2,2,0,4,4]],
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[0,1,1,2,2,2,2,2,0,4,4],[1,1,1,2,2,2,2,3,4,3,0],[0,2,2,2,2,2,2,2,2,4,0,3]],
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[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,0,3],[1,1,1,2,2,2,2,3,4,3,0]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
[[0,0,0,0,1,0,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,2,3,0,4],[1,1,1,2,2,2,2,2,3,3,4,0]]
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[1,2,2,2,2,2,2,3,6,0,0],[0,1,1,2,2,2,2,2,0,4,4],[0,1,1,2,2,2,2,2,0,4,4]],
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[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,3,0],[1,1,1,2,2,2,2,2,3,4,0,3]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0]] ], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0]] ], \\
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 [[0,0,0,0,0,0,0,0,0],[0,1,0,0],[0,1,0,1,1,1,1,1,1],[0,0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0
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[0,2,2,2,2,2,2,3,3,1],[0,1,1,2,2,2,2,2,3,2,3],[1,1,1,2,2,2,2,3,1,3,3]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,2,2,2,2,2,2,2,0,4,3],[0,1,1,2,2,2,2,2,4,0,4],[1,1,1,2,2,2,2,3,3,4,0]]
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,2,2,2,2,2,2,4,3,0],[0,1,1,2,2,2,2,2,3,2,3],[1,1,1,2,2,2,2,2,3,0,3,4]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
 [[0,0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,0,2,2,2,2,2],[0,1,1,2,2,0,2,2,2,2],[1,1,1,2,0,3,2,1,2,2,2],[0,1,1,2,2,2,0,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0
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[0,1,1,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
[1,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
[0,1,1,2,2,2,2,2,2,4],[1,2,2,2,2,2,2,3,2,4,0],[0,1,1,2,2,2,2,2,4,0,4]],
[0,1,1,2,2,2,2,2,2,4,2],[0,1,1,2,2,2,2,2,4,0,4],[1,2,2,2,2,2,2,3,2,4,0]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,3,1,3],[1,1,1,2,2,2,2,2,3,3,3,1]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,0,4,4],[1,1,1,2,2,2,2,3,4,1,2],[0,2,2,2,2,2,2,2,2,4,2,1]],
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[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,2,1],[1,1,1,2,2,2,2,3,4,1,2]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,0,4,4],[1,1,1,2,2,2,2,3,4,0,3],[0,2,2,2,2,2,2,2,2,4,3,0]],
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[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,3,0],[1,1,1,2,2,2,2,2,3,4,0,3]]
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0]] ], \\
 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,0,0,0,0,0,0],[1,1,1,1],[0,0,0,1,1,1,1],[0,0,0],[0,0,1,1,1,1],[1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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[0,0,1,1,1,1,1,1,2,1,1],[0,0,1,1,1,1,1,1,1,1,2],[0,0,1,1,1,1,1,1,1,1,2,1]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[[0,0,0,0,0,0,0,0,0,0,0],[0,1,0,1],[0,1,0,1],[0,1,1,1,1],[0,0,1,1],[0,0,1],[0,1,1,1],[0,1],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,
[0,1,1,2,2,2,2,2,0,4,4],[0,2,2,2,2,2,2,2,4,0,3],[1,1,1,2,2,2,2,3,4,3,0]]
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0]] ], \\
 [[0,1,0,0,0,0,0,0,0,0,0],[1,1,0,0,0,0,0,0],[1,1,1,1],[0,0,0,1,1,1,1],[0,0,0],[0,0,1,1,1,1],[1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1,1],[0,0,1,1,1,1],[0,0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,3,3],[0,2,2,2,2,2,2,3,1,3],[1,1,1,2,2,2,2,2,3,3,3,1]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,4,2],[0,1,1,2,2,2,2,4,2,2],[1,2,2,2,2,2,2,2,3,2,2,2]]
                                        \# d=[0,1,2,3,4,5,6,7,8,10,9]
 [[1,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0
 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,3,3],[1,1,1,2,2,2,2,3,3,2,2],[0,2,2,2,2,2,2,2,2,3,2,2]]
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
 [[0,0,0,0,0,1,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,0,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[1,1,1,2,2,1,2,1,2,2,2],[0,1,1,2,2,2,0,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 [ [0,0,0,0,0,0,0,0,0,0], [0,1,0,1], [0,1,1,1,1,1,2,1,1], [0,0,1,1,1,1,1,1,2,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,1,1,2], [0,
[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4,2],[0,1,1,2,2,2,2,2,2,2,4]],
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[0,1,1,2,2,2,2,2,2,4],[1,2,2,2,2,2,3,4,1,1],[0,1,1,2,2,2,2,2,2,5,1]]
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[1,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,4,2,2],[1,2,2,2,2,2,2,3,2,2,2]],
[0,1,1,2,2,2,2,2,4,2],[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4,2,2]]
 \begin{bmatrix} [1,0,0,0,0,0,0,0,0,0],[0,1,0,0,0,0,0],[0,0,1,0,0,0,0],[0,0,1,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0,0],[0,0,0],[0,0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0,0],[0,0],[0,0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,0],[0,
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
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[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4,2],[0,1,1,2,2,2,2,2,2,2,4]],
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[0,1,1,2,2,2,2,2,2,4],[1,2,2,2,2,2,2,3,4,1,1],[0,1,1,2,2,2,2,2,2,5,1]]
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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 [0,0,0,0,0,0,0,0,1,0,0], [0,0,0,0,0,0,0,0,0,1,0], [0,0,0,0,0,0,0,0,0,0,0,1]], \\
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
 [[0,0,0,0,1,0,0,0,0,0,0],[0,0,1,1,1,1,1,1,1,1,1,1],[0,1,0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
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[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
 \begin{bmatrix} [0,0,0,0,0,0], [0,0,1,0,0,0], [0,0,1,1,1,1,1,1], [0,1,0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0,1], [0
[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2,2]],
 [[0,0,0,0,0,0,0,0],[0,1,1,1,1,1,1,1,1,1,1,1,1,1],[0,1,1,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1
[0,1,1,2,2,2,2,3,2,2],[0,1,1,2,2,2,2,2,2,3,2],[0,1,1,2,2,2,2,2,2,2,3]],
 [[0,0,0,0,0,0,0,0,0],[0,1,0,1],[0,1,1,1,1,1,2,1,1],[0,0,1,1,1,1,1,1,2,1,1],[0,1,1,2,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2,2],[0,1,1,2,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1,1,2],[0,1
[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,2,4,2]],
[0,1,1,2,2,2,2,2,2,4],[0,1,1,2,2,2,2,2,4,2,2],[1,2,2,2,2,2,2,2,3,2,2,2]],
 [[0,0,0,0,0,0,0,0,0,0,0],[0,1,0,1],[0,1,0,1],[0,1,1,1],[1,1,1],[0,0,1],[0,1,1,1],[1,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],[0,1],
[0,1,1,2,2,2,2,2,4,2],[1,2,2,2,2,2,2,3,2,2,2],[0,1,1,2,2,2,2,2,2,4,2,2]]
```

BL = [S60, S168, S210, S360, S7980, S660, S990, S1260, S1320, S504, S1092, S1320b, S1512, S2520, S2730, S3420, S3960, S7980b, S8736, S720, S1638, S1680, S1716, S2184, S2640, S3366, S4620, S720b, S990b, S2184b, S2448]

```
print([i,j])
 . . . . :
 . . . . :
 [13, 2]
[13, 3]
[13, 7]
[13, 8]
sage: for i in range(31):
                      for j in range(L[i]):
    if not DualBurnside(BL[i][j]):
. . . . :
 . . . . :
                                        print([i,j])
 . . . . :
[7, 0]
[7, 1]
[13, 0]
 [13, 1]
 [13, 2]
[13, 2]
[13, 3]
[13, 4]
[13, 5]
[13, 6]
[13, 7]
 [13, 8]
 [16, 0]
[16, 0]
[16, 1]
[16, 2]
[18, 0]
sage: %attach /home/sebastien/Nutstore Files/SAGE/AllCriteria.sage
sage: for i in range(31):
                       for j in range(L[i]):
 . . . . :
                              M=BL[i][j]
[v,ro]=IntFormalCodegrees(M)
if v and IsIntDrinfeldInter(M,v,ro):
 . . . . :
 . . . . :
 . . . . :
                                       print([len(M),i,j])
 . . . . :
[5, 0, 0]
[6, 1, 0]
[7, 2, 0]
[7, 2, 1]
[7, 3, 0]
[7, 3, 1]
[8, 5, 4]
[8, 5, 5]
[8, 5, 10]
[8, 5, 11]
[8, 5, 13]
[8, 5, 14]
[8, 8, 0]
[9, 9, 0]
[9, 9, 1]
[9, 10, 24]
[9, 10, 20]
[9, 10, 24]
[9, 10, 27]
[9, 10, 27]
[9, 10, 29]
[9, 11, 0]
[9, 10, 29]
[9, 11, 0]
[9, 13, 0]
[9, 13, 4]
[9, 15, 5]
[9, 15, 7]
[9, 15, 10]
[9, 15, 11]
[10, 21, 17]
 [10, 21, 19]
[10, 21, 27]
[10, 21, 29]
```

```
[10, 21, 32]
[10, 21, 34]
[10, 21, 47]
[10, 21, 47]
[10, 21, 57]
[10, 21, 59]
[10, 21, 62]
[10, 21, 62]
[10, 21, 64]
[10, 21, 69]
[10, 21, 72]
[10, 21, 74]
[10, 26, 0]
[10, 26, 10]
[10, 26, 11]
[10, 26, 13]
[10, 26, 14]
[11, 28, 2]
[11, 28, 4]
[11, 30, 75]
[11, 30, 79]
[11, 30, 132]
[11, 30, 134]
[11, 30, 144]
[11, 30, 149]
[11, 30, 177]
[11, 30, 179]
% 59 among 505 are Drinfeld
sage: for i in range(31):
               for j in range(L[i]):
. . . . . .
                     M=BL[i][j]
. . . . :
                     [v,ro]=IntFormalCodegrees(M)
if v and IsIntDrinfeldInter(M,v,ro):
. . . . :
. . . . :
                           if SchurReformulated(M):
. . . . :
                                 print([len(M),i,j])
. . . . :
[5, 0, 0]
[5, 6, 6]
[6, 1, 0]
[7, 2, 1]
[7, 3, 1]
[8, 5, 5]
[8, 5, 11]
[9, 9, 0]
[9, 9, 1]
[9, 10, 14]
[9, 10, 14]
[9, 10, 29]
[9, 13, 4]
[9, 15, 10]
[9, 15, 11]
[10, 21, 49]
[10, 21, 74]
[10, 26, 0]
[11, 28, 2]
[11, 28, 4]
[11, 30, 75]
[11, 30, 79]
[11, 30, 132]
[11, 30, 134]
[11, 30, 144]
[11, 30, 149]
[11, 30, 177]
[11, 30, 179]
%among them, 26 are also 3-positive
% the four exotic ones of rank 9 are all open:
sage: SL=[BL[9][0],BL[9][1],BL[10][14],BL[10][29],BL[15][10],BL[15][11]]
```

```
sage: CheckingList(SL,60)
FPdim ~ 504.00000000000006
\text{FPdims} \simeq [1.0, 7.0000000000000001, 7.0000000000001, 7.00000000000001, 7.00000000000001, 7.999999999999, 9.0, 9.0, 9.0]
simple
non-1/2-FrobType, so not modular cat
CC= [504, 9, 9, 9, 9, 8, 7, 7, 7]
Non-pivotal Column= 1
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1, -1]
FPdim \approx 504.0
simple
non-1/2-FrobType, so not modular cat
CC= [504, 9, 9, 9, 9, 8, 7, 7, 7]
Non-pivotal Column= 1
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1]
FPdim ~ 1091.99999999998
simple
non-1/2-FrobType, so not modular cat
CC= [1092, 13, 13, 12, 7, 7, 7, 6, 6]
Non-pivotal Column= 1
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1, -1]
FPdim ~ 1091.99999999998
simple
non-1/2-FrobType, so not modular cat
CC= [1092, 13, 13, 12, 12, 7, 7, 7, 4]
Non-integral coeff [3, 3, 1] 13/2
Non-pivotal Column= 1
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1, -1]
FPdim ≃ 3420.0
= [1.0, 9.0, 9.0, 19.0, 20.0, 19.99999999999, 20.0, 20.0, 36.0]
simple
non-1/2-FrobType, so not modular cat
CC= [3420, 19, 19, 9, 9, 9, 9, 5, 4]
Non-pivotal Column= 1
```

```
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
 Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1, -1]
FPdim \approx 3419.99999999999
non-1/2-FrobType, so not modular cat
CC= [3420, 19, 19, 9, 9, 9, 9, 5, 4]
Non-pivotal Column= 1
Non-pivotal Column= 2
Non-pivotal Column= 3
Non-pivotal Column= 4
Non-pivotal Column= 5
Non-pivotal Column= 6
Non-pivotal Column= 7
Non-pivotal Column= 8
Isaacs list = [0, -1, -1, -1, -1, -1, -1, -1, -1]
# let us see those only 3-positive:
sage: c=0
\dots: for i in range(31):
           for j in range(L[i]):
. . . . :
                M=BL[i][j]
....:
                if PositiveCo(M,3):
 . . . . :
                     c+=1; print([len(M),i,j])
 . . . . :
[5, 0, 0]
[6, 1, 0]
[7, 2, 1]
[7, 3, 1]
[8, 5, 5]
[8, 5, 11]
[9, 9, 0]
[9, 9, 1]
[9, 10, 14]
[9, 10, 29]
[9, 10, 29]
[9, 13, 4]
[9, 15, 8]
[9, 15, 9]
[9, 15, 10]
[9, 15, 11]
[10, 21, 49]
[10, 21, 74]
 [10, 26, 0]
[11, 28, 2]
[11, 28, 4]
[11, 30, 75]
[11, 30, 79]
[11, 30, 132]
[11, 30, 134]
 [11, 30, 144]
 [11, 30, 149]
 [11, 30, 177]
[11, 30, 179]
sage: c
28
```

1.1.1