

Problem 1

Given an undirected simple graph, find the minimum number of edges that needs to be added to make the graph Eulerian (parallel edges are allowed in the resultant graph). Print the list of vertices which will be modified, in the sorted order. If the graph is already Eulerian, print -1.

Assume that the input graph is a simple graph and it is connected. If the graph is on n vertices, the vertex set is from $\{0, \dots, n-1\}$.

The input graph is given in adjacency matrix format. The first line of the input specifies n , the number of vertices. The following n^2 entries of 0s and 1s denote the row major ordering of the adjacency matrix.

Sample Input

```
4      #Number of vertices
0      #Entries of matrix in row-major order
1
0
1
1
0
0
0
0
0
0
0
1
1
0
1
0
```

/*

An adjacency matrix (0-1 matrix) where, 1 corresponds to presence of an edge, and 0 - absence of the edge)

*/

Sample Output

```
1
2
```