Depth-first search (DFS)

Cost: 6 | Solved: 126

Memory limit: 256 MBs

Time limit: 1 s

Input: input.txt

Output: output.txt

Task:

You are given an undirected unweighted graph and one of its vertexes.

Find such vertexes that belong to one connected component with the given vertex (including this vertex).

You must use depth-first search (DFS) algorithm while completing this task.

Input:

The first line contains a natural ***n*** (1 ≤ ***n*** ≤ 100) – the quantity of the graph's vertexes.

The second line contains the index of a vertex which connected component you need to find.

The next ***n*** lines contain the adjacency matrix of the graph (0 means no edge, 1 means the edge exists).

Output:

The connected component.

Example:

Input	Output

4 1 0 1 1 0 1 0 0 0 1 0 0 0 0 0 0 0	1 2 3