

Problem 1:

Professor and the money heist crew are planning their escape. But to plan the escape they need to navigate the city from the Bank of Spain in Madrid to their safehouse at location d .

So they need your help to devise an algorithm they can use to escape.

Now the city is in the form of a graph. The roads are edges and each junction where two or more roads meet is a node.

So there are N junctions or nodes M bidirectional roads or edges, to travel through i^{th} road it takes Professor t_i time.

There are police stations in the city as soon as they are informed the forces from the stations go to the junctions.

Now Professor wants to know the least amount of time in which he can reach the safe house after completing the heist.

Note: Police can intercept them only at the junctions.

Problem 2:

Generate binary numbers between 1 to N using a queue. N is provided by user.

If $N = 8$

Output will be

1 10 11 100 101 110 111 1000

The algorithms must be in linear time.