



## D Directed 67

TIME LIMIT: 1.0s  
MEMORY LIMIT: 256MB

As a waterpark director, you have to plan the rides. You already know that your rides will look like a directed graph with  $n$  vertices and  $m$  edges. However, you don't know yet how long each of the edges will be, which is determined by the edge's weight. Based on the materials you have, each weight should be one of the digits  $d_1, d_2, \dots, d_k$ .

The weight of a directed path is the sum of the digits assigned to the edges of the path (edges in a path are allowed to repeat).

You know that if there is a directed path of weight  $w$  divisible by 67, it will become the only ride used, and you want to avoid that. Provide the assignment, where there is no path with weight divisible by 67, or determine there is no such assignment.

### INPUT

The first line contains two integers  $n$  and  $m$  ( $1 \leq n, m \leq 200000$ ).

The second line contains a non-empty string  $s$  consisting of distinct characters from 1 to 9. These are the allowed digits  $d_i$  ( $1 \leq d_i \leq 9$ ).

Each of the next  $m$  lines contains two integers  $u_i$  and  $v_i$  ( $1 \leq u_i, v_i \leq n$ ). This means that there is a directed edge from  $u_i$  to  $v_i$ . Multiple edges and self-loops are allowed.

### OUTPUT

If there is no valid assignment, print NO.

Otherwise, print YES on the first line.

On the second line print  $m$  integers  $a_1, a_2, \dots, a_m$ , where  $a_i$  is the digit assigned to the  $i$ -th edge. Each  $a_i$  must be one of the allowed digits.

If there are several valid assignments, print any of them.

### SAMPLES

Sample input 1	Sample output 1
2 1 3 1 2	YES 3

Sample input 2	Sample output 2
4 3 679 1 2 1 3 3 4	YES 6 7 7

Sample input 3	Sample output 3
3 3 123 1 2 2 3 3 1	NO