

# Dominating Point

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            1 second  
Memory limit:         256 megabytes

You're given a complete directed graph  $G$  with  $n$  vertices. We call a vertex  $u$  **dominating** if for every  $v \neq u$ , there either exists an edge  $(u \rightarrow v)$  or there exists a vertex  $w$  satisfying  $(u \rightarrow w)$  and  $(w \rightarrow v)$ .

You now need to find 3 distinct dominating vertices of the given graph. If there are less than 3 dominating vertices, output NOT FOUND.

## Input

The first line of input contains one integer  $n$  ( $1 \leq n \leq 5000$ ).

The next  $n$  lines of input contain a binary string  $s_i$  each. There exists edge  $(u \rightarrow v)$  if the  $v$ -th character of  $s_u$  is 1; otherwise, there is no such edge. It is guaranteed that exactly one of  $s_{i,j} = 1$  and  $s_{j,i} = 1$  holds for every  $1 \leq i < j \leq n$  and  $s_{i,i} = 0$  for every  $1 \leq i \leq n$ .

## Output

The first line of output contains three integers  $a, b, c$ , denoting the answer you've found, or NOT FOUND, if there are not enough dominating vertices.

## Examples

standard input	standard output
6 011010 000101 010111 100001 010100 100010	3 1 4
3 011 001 000	NOT FOUND
3 010 001 100	1 3 2