Problem E. 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 $(u \to v)$ or there exists a vertex w satisfying $(u \to w)$ and $(w \to v)$.

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 $(u \to v)$ 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