

Perfect Matching

You are given a bipartite graph with N ($1 \leq N \leq 300$) nodes on each side. Determine whether the number of perfect matching is odd or even.

Input

First line is an integer T ($1 \leq T \leq 20$) means the number of test cases. The following are T parts. Each part begin with an integer N ($1 \leq N \leq 300$) means the number of nodes on both sides. It followed with N lines, each line contains a 0/1 string. If the j ($1 \leq j \leq N$)th character of the i ($1 \leq i \leq N$)th line is 1, it means the i th node on left have an edge to the j th node on right. See the sample for details.

Output

T lines, each contain "Odd" or "Even", which means the parity of the number of the perfect matching. See the sample for details.

Example

Input:

```
2
1
1
4
1100
1100
0011
0011
```

Output:

```
Odd
Even
```

Constraints

$1 \leq N \leq 300$

$1 \leq T \leq 20$