## Problem L

# Waves

*Source file:* waves.{c | cpp | java | py2 | py3}

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Have you seen “The 5th Wave” movie yet? Its title in portuguese, as one would expect, is “A Quinta Onda”. It consists of an aliens arrival whose purpose is to dominate Earth while keeping only what is of interest for them. Since humans are not of interest, our race must be destroyed. Their approach for destroying us consists of a set of attacks called waves. After the first wave all electricity is gone. The second wave consists of a tsunami which kills about 40% of the world population. Please watch the movie to find out more about the other waves. Anyway, it is been said that something similar to the first wave has happened recently. The company responsible for electricity claims some areas are out of electricity because of an aliens attack (no one has ever seen an alien around, however). According to the company, they have a main site which is the source of all electricity of the city. The cables leave the main site and go through a set of $1 \leq n \leq 100$ towers. According to the latest news, some cables have been stolen by aliens (aliens are not that sophisticated, as you may notice). Not all towers are connected directly to the main site. For getting to a given tower, the cables may have to pass through a set of towers first. Please help the company (and the world) by telling which towers are unreachable currently. See Figure 1.

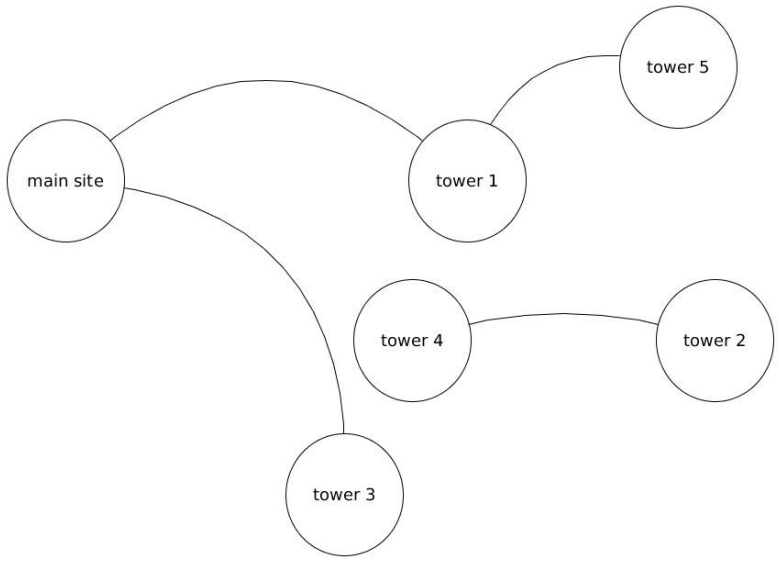


Figure 1. In this example, towers 2 and 4 are currently unreachable. Although they may be reachable from each other, they cannot be reached from the main site.

# Input

Input starts with an integer t ($1 \leq t \leq 100$ ) which indicates the number of test cases. t test cases follow. Each test case consists of a line containing an integer n (the number of towers, including the main site) and a sequence of n lines each containing n integers separated by a blank space. Each of these may be 0 or 1. The first integer on the first line indicates whether the main site is connected to itself, which is always true, the second integer on the first line indicates whether the main site is connected directly to tower 1 and so on. The first integer on the second line indicates whether or not tower 1 is connected directly to the main site, the second integer on the second line indicates whether or not tower 1 is connected to itself which is always true and so on. Number 1 indicates there is connection and 0 indicates there isn't. That is, these numbers consists of a symmetric matrix that may be seen as a representation of a graph. In graph language, your task is to find the connected component of the main site and say which vertices do not belong to it.

# Output

For each test case, the output of your program must contain the text **Test case #**:(with ($1 \leq \# \leq 100$ ) followed by a blank space, followed by an increasing ordered list of integers separated by a blank space indicating which towers are currently unreachable. Each test case must be shown in a separate line and no empty line should be shown at the end. In case all towers are reachable, the test case must show the text: “Fully working network!!”, no quotes included.

# Examples

**Input**

```
3
3
1 1 0
1 1 0
0 0 1
5
1 1 0 0 0
1 1 0 1 0
0 0 1 0 1
0 1 0 1 0
0 0 1 0 1
3
1 1 1
1 1 1
1 1 1
```

**Output**

```
Test case 1: 2
Test case 2: 2 4
Test case 3: Fully working network!!
```