Kenneth is confident in his skills but has asked your UIL programming team for assistance creating a program that confirms whether or not a proposed solution is correct. The program does NOT solve the puzzle.

Input: First line will contain a number $1 \leq T \leq 10$ as the number of test cases. Each test case will be followed by nine lines which are the rows and each row contains exactly 9 digits separated by spaces with all digits being 1…9 and no stray or extra characters.

Output: For each test case, the first line of output starts with "`GRID #t:`" and a space with `t` as the test case number starting with 1 and that is followed by either "`SOLUTION IS CORRECT`" or "`NOT A SOLUTION`". When the proposed solution is correct, no other details are output. When the proposed solution is not correct, two more lines will be output. The first detail line starts with "`>> ROWS WITH ERRORS:`" and a space and either a list of row numbers containing errors or "`NONE`". The second detail line starts with "`>> COLUMNS WITH ERRORS:`" and a space and either a list of column numbers containing errors or "`NONE`". Display multiple row and column numbers in ascending order separated by single spaces. Each test case result is followed by a row containing 12 equal signs "`============`".

Sample input:

```
3
1 9 4 8 7 2 3 5 6
8 7 5 6 3 4 1 9 2
3 6 2 9 5 1 4 7 8
6 2 1 7 8 9 5 3 4
9 8 3 4 6 5 2 1 7
5 4 7 1 2 3 6 8 9
4 5 6 3 9 8 7 2 1
7 3 9 2 1 6 8 4 5
2 1 8 5 4 7 9 6 3
1 9 4 8 7 2 3 5 6
8 7 5 6 3 4 1 9 2
3 6 2 4 5 1 9 7 8
6 2 1 7 3 9 5 8 4
9 8 3 4 6 5 2 1 7
5 4 7 1 2 3 6 8 9
9 5 6 8 4 3 7 2 1
7 3 9 2 1 6 8 4 5
2 1 8 5 4 7 9 6 3
4 1 6 5 7 2 9 3 8
7 8 2 6 3 9 2 1 4
3 2 9 8 4 1 7 5 6
1 6 8 3 2 7 5 4 9
5 9 7 1 8 4 3 6 2
2 4 3 9 5 6 1 8 7
8 7 1 2 8 5 4 9 3
9 3 4 7 1 8 6 2 5
6 5 2 4 9 3 8 7 1
```

Sample output:

```
GRID #1: SOLUTION IS CORRECT
============
GRID #2: NOT A SOLUTION
>> ROWS WITH ERRORS: NONE
>> COLUMNS WITH ERRORS: 1 4 5 7
============
GRID #3: NOT A SOLUTION
>> ROWS WITH ERRORS: 2 7
>> COLUMNS WITH ERRORS: 3 5
============
```