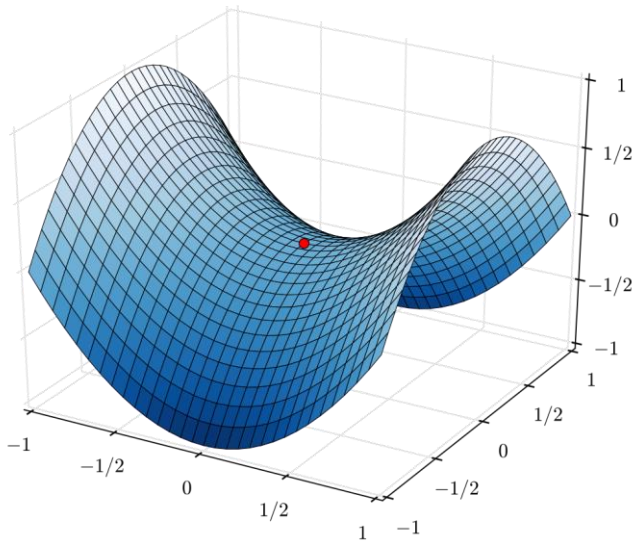
15 Take the red pill

10 points

Introduction

Remember the movie The Matrix (1999): "..., *to enter into a matrix and locate its saddle point if it exists*", so let's try to enter in Matrix. Given an N x N matrix of integers the saddle point is the minimum element in its row and the maximum in its column. So, help Neo writing a program to find out whether a saddle point exists and which is its value.



HINT: If there is a saddle point, it will be only one.

Input

The input consists of:

- The first row contains a single integer N that defines the matrix size (N rows x N columns).
- The following N lines define the rows of the matrix with N integer values per row.

Output

If there is a saddle point, print a message saying which element of the matrix is the saddle point. Otherwise, print the error message "No saddle point in the matrix".

Example 1

Input

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

Output

```
The saddle point is 7
```

Example 2

Input

```
3
1 2 3
7 8 9
10 5 6
```

Output

```
No saddle point in the matrix
```