

# Count maximum matrices

You are given a matrix  $A$  of  $M$  rows and  $N$  columns, consisting of numbers 0 and 1. For a rectangle in  $A$  (sides  $\geq 1$ ),  $X1$  is the number of ones on its sides,  $X0$  is the number of zeros on its sides, and its *value* is defined as  $X1 - X0$ . Let us consider  $W$ , the maximum value taken over submatrices of  $A$ , and  $S$ , the number of submatrices with value  $W$ . Your task is to find  $W$  and  $S$ .

## Input

The first line of input contains the number of testcases  $t$  ( $t \leq 15$ ). The first line of each testcase contains the numbers  $M, N$  ( $1 \leq M, N \leq 200$ ) Then  $M$  lines follow. In each line, there are  $N$  numbers 0 or 1.

## Output

For each testcase, you should output a single line with numbers  $W$  and  $S$ .

## Example

**Input:**

```
1
5 6
1 1 1 1 1 1
1 0 0 0 0 1
1 0 0 0 0 1
1 0 0 0 0 1
1 1 1 1 1 1
```

**Output:**

```
18 1
```