Hill

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	256 megabytes

Amanbol has a table A of size $n \times m$. The rows of the table are numbered from 1 to n, and the columns are numbered from 1 to m. Each cell of the table either contains the character '`X`', or one digit from '`0`' to '`9`'.

If the symbol '`X`' is written on a table cell, it means that Amanbol marked this cell as *blocked*. Otherwise, the number written on this cell denotes its *value*.

After a recent hike in the mountains, Amanbol wants to find a *hill* in his table. He defines a *hill* as follows:

1. First we choose two numbers (s, e) such that $(1 \leq s \leq e \leq n)$.
2. Then for each k $(s \leq k \leq e)$ we choose a pair (L_k, R_k) such that $(1 \leq L_k \leq R_k \leq m)$.
3. The conditions $L_s \geq L_{s+1} \geq \ldots \geq L_e$ and $R_s \leq R_{s+1} \leq \ldots \leq R_e$ should be satisfied.

Let's say that a cell (x, y) belongs to a hill if $s \leq x \leq e$ and $L_x \leq y \leq R_x$. Among all possible hills, Amanbol wants to find the one **with no blocked cells** and the total value of all its cells is maximum. Help him with this task!

Input

The first line of the input contains two integers n and m $(1 \leq n, m \leq 2500)$ — the number of rows and columns in table A.

The i-th of the next n lines contains exactly m characters $A_{i,1}, \ldots, A_{i,m}$.

It is guaranteed that each table cell is a character '`X`' or a digit from '`0`' to '`9`'. It is also guaranteed that it is always possible to find at least one hill in the table.

Output

Print a single integer — the maximum possible total value of all cells of the hill.

Scoring

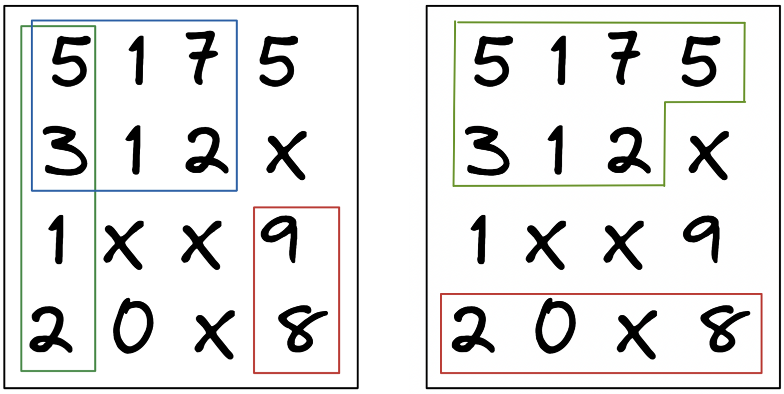
This task contains 5 subtasks.

Subtask	Additional restrictions	Points	Required subtasks
0	Examples	0	—
1	$n = 1$	12	—
2	No blocked cells	7	—
3	$n, m \leq 50$	25	0
4	$n, m \leq 300$	22	3
5	—	34	1, 2, 4

Examples

standard input	standard output
4 4 5175 312X 1XX9 20X8	19
1 6 1X23X4	5

Note



First example

In the first example, for instance, the following hills are possible:

1. Let's choose $s = 3, e = 4$. Then choose $(L_3, R_3) = (4, 4)$ and $(L_4, R_4) = (4, 4)$ (marked in red in the first image). The total value of the cells of this hill is $9 + 8 = 17$.
2. Let's choose $s = 1, e = 4$. Then choose $(L_k, R_k) = (1, 1)$ for all k $(1 \leq k \leq 4)$ (marked in green in the first image). The total value of the cells of this hill is $5 + 3 + 1 + 2 = 11$.
3. Let's choose $s = 1, e = 2$. Then choose $(L_1, R_1) = (1, 3)$ and $(L_2, R_2) = (1, 3)$ (marked in blue in the first image). The total value of the cells of this hill is 19.

And the following hills, for example, are invalid:

1. Let's choose $s = 1, e = 2$. Then choose $(L_1, R_1) = (1, 4)$ and $(L_2, R_2) = (1, 3)$ (marked in green in the second image). This hill is invalid because the condition $R_1 \leq R_2$ is not fulfilled.
2. Let's choose $s = 4, e = 4$. Then choose $(L_4, R_4) = (1, 4)$ (marked in red in the second image). This hill is invalid because the hill contains a blocked cell $(4, 3)$.

It can be shown that among all possible hills, the maximum total value of cells will be equal to 19.