C. Matrix Swapping II

Time Limit: 5.0 Seconds Memory Limit: 65536K

Given an *N* * *M* matrix with each entry equal to 0 or 1. We can find some rectangles in the matrix whose entries are all 1, and we define the maximum area of such rectangle as this matrix's goodness.

We can swap **any two columns** any times, and we are to make the goodness of the matrix as large as possible.

Input

There are several test cases in the input. The first line of each test case contains two integers *N* and *M* ($1 \le N,M \le 1000$). Then *N* lines follow, each contains *M* numbers (0 or 1), indicating the *N* * *M* matrix

Output

Output one line for each test case, indicating the maximum possible goodness.

Sample Input

```
3 4
1011
1001
0001
3 4
1010
1001
0001
```

Sample Output

```
4
2
```

Note: Huge Input, scanf() is recommended.

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