Problem D
Jim's Magical Coffee Spill I

Time limit: **3 seconds**
Memory limit: **1024 megabytes**

Problem Description

Jim is a magician. One day, while playing with his magic hat at home, he accidentally spilled a cup of Java coffee onto the floor, leaving several stains.

Fortunately, Jim is a super magician. He can create a rectangular cloth to cover all the stains.

To avoid being scolded by his mom, he wants to know the minimum area of such a cloth.

The cloth must be a rectangle aligned with the floor's edges, and it must cover all positions with stains (1). Please help Jim compute the smallest possible area of the cloth.

Input Format

Your program is to read from standard input.

The input consists of T test cases. The number of test cases T is given in the first line of input.

Each test case is structured as follows:

- The first line contains two integers m and n, the number of rows and columns of the floor.
- The second line contains $m \times n$ integers, each being 0 or 1, listed in row-major order (row by row, flattened into one line).
  - 0 means the position has no stain.
  - 1 means the position has a stain.

Output Format

For each test case, output one line containing a single integer - the minimum possible area of the rectangle that covers all the stains.

Technical Specification

- $1 \leq T \leq 10,000$
- $1 \leq m, n \leq 100,000$
- At least one stain (1) exists in each test case.
- Each element is either 0 or 1.

Sample Input 1

Sample Output 1

```
2
2 3
0 1 0 1 0 1
2 2
1 0 0 0
```

```
6
1
```