

# Strange Sum

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            1 second  
Memory limit:         512 megabytes

Given two non-negative integers  $n$  and  $x$ .

Also, for all  $1 \leq l \leq r \leq n$ , an integer  $w_{l,r}$  is given.

For an array of integers  $A = [a_1, a_2, \dots, a_n]$ , define

$$f(A) = \sum_{l=1}^n \sum_{r=l}^n w_{l,r} \cdot \min(a_l, a_{l+1}, \dots, a_r).$$

You are required to find the maximum possible value of  $f(A)$  over all arrays  $A$  such that

$$a_1 + a_2 + \dots + a_n = x \quad \text{and} \quad a_i \geq 0.$$

## Input

The input in this problem contains one or more test cases.

The first line contains a single integer  $t$  – the number of test cases ( $1 \leq t \leq 50$ ).

The descriptions of the  $t$  test cases follow.

The first line of each test case contains two integers  $n$  and  $x$  ( $1 \leq n \leq 50$ ,  $1 \leq x \leq 10^9$ ).

In the  $i$ -th of the following  $n$  lines, there are  $n - i + 1$  integers  $w_{i,i}, \dots, w_{i,n}$  ( $1 \leq w_{i,j} \leq 10^6$ ).

## Output

For each test case, output a single integer: the maximum value of  $f(A)$  among all arrays  $A$  such that

$$a_1 + a_2 + \dots + a_n = x \quad \text{and} \quad a_i \geq 0.$$

## Example

standard input	standard output
3	30
5 10	10
1 1 1 1 1	14999999995
1 1 1 1	
1 1 1	
1 1	
1	
1 10	
1	
4 1000000000	
1 2 3 4	
5 6 7	
8 9	
10	