

## Problem K. Almost a Convolution

Input file: tables.in  
Output file: tables.out  
Time limit: 9 seconds  
Memory limit: 256 mebibytes

You are given two two-dimensional arrays of integers:  $A$  of size  $N_A \times M_A$  and  $B$  of size  $N_B \times M_B$ . Besides, each dimension of  $B$  is not greater than the corresponding dimension of  $A$ .  $B$  can be placed over  $A$  in  $(N_A - N_B + 1) \times (M_A - M_B + 1)$  positions. For each such placement one can count the number of elements of  $B$  that are strictly greater than the corresponding elements of  $A$ . You need to find the sum of such counts over all placements of  $B$ . More formally, you are to find the following sum:

$$\sum_{x=0}^{N_A-N_B} \sum_{y=0}^{M_A-M_B} \sum_{i=1}^{N_B} \sum_{j=1}^{M_B} \begin{cases} 1, & \text{if } A_{i+x,j+y} < B_{i,j} \\ 0, & \text{if } A_{i+x,j+y} \geq B_{i,j} \end{cases}$$

### Input

The input contains descriptions of arrays  $A$  and  $B$ , each in the following format. First line contains integers  $N$  and  $M$  ( $1 \leq N, M \leq 1000$ ), the next  $N$  lines contain  $M$  numbers each. It is guaranteed that  $N_B \leq N_A$ ,  $M_B \leq M_A$  and  $-10^9 \leq A_{i,j}, B_{i,j} \leq 10^9$ .

### Output

The output should consist of a single integer: the requested sum.

### Examples

tables.in	tables.out
5 5 1 7 4 0 9 8 8 2 4 5 1 7 1 1 5 7 6 1 4 2 2 2 1 6 8 3 2 7 6 1 8 9 2	43