Problem D
Nested Rectangles
Input: Standard Input
Output: Standard Output

Sultan has a rectangle of **R** rows and **C** columns. Each cell of this rectangle contains an integer. Sultan chooses n subrectangles. The i'th subrectangle has **Ri** rows and **Ci** columns and it is nested inside (i-1)'th subrectangle. The first subrectangle is nested inside the initial rectangle. Sultan then multiplies all the integers outside the first subrectangle with $\mathbf{M_0}$. Then he multiplies all the integers inside i'th rectangle but outside (i+1)'th rectangle with $\mathbf{M_i}$. Then he multiples all the integers inside n'th subrectangle with $\mathbf{M_n}$. So he get a new rectangle of integers. The sum of all the integers of this new rectangle is **S**. Help Sultan to choose all this subrectangles in such a way so that **S** is maximized.

-1	-1	-1	-1	-1	-1
-1	2	2	2	-1	-1
-1	2	-1	2	-1	-1
-1	2	-1	2	-1	-1
-1	2	2	2	-1	-1
-1	-1	-1	-1	-1	-1

In the above figure, the outer most portion (that is not contained in any of the sub rectangle) is multiplied by $\mathbf{M_0}$, the portion inside the first rectangle, but outside the second one by $\mathbf{M_1}$, portion inside 2^{nd} and outside 3^{rd} by $\mathbf{M_2}$, and so forth. The portion inside the N th sub rectangle is multiplied by $\mathbf{M_n}$.

Input:
First line of the input contains **T(≤20)** the number of test cases. First line of the each test case contains 3 integers **R(1≤R≤500),C(1≤C≤500)** and **n(1≤n≤5)**. Second line contains **n** integers $\mathbf{R_1,R_2....,R_n(R> R_1>R_2>...>R_n)}$. Third line contains **n** integers $\mathbf{C_1,C_2,....,C_n(C> C_1>C_2>...>C_n)}$. The values $\mathbf{R_i}$, $\mathbf{C_i}$ describes the dimensions of the i^{th} sub rectangle. Fourth line contains **n+1** integers $\mathbf{M_0,M_1,...,M_n\ (-10\leq M_i\leq 10)}$, the values of each multiplier. Lines 5 to line 4+R each contain **C** integers. The j^{th} integer in the $(i+4)^{th}$ line is the number in the i^{th} row and j^{th} column of the initial rectangle. All the integers in the initial rectangle is between -100 to +100 inclusive.

Output:
For each test case output contains one integer denoting the maximum value of **S**.

Sample Input	Sample Output
1 6 6 2 4 2 3 1 0 1 -1 -1 -1 -1 -1 -1 -1 -1 2 2 2 -1 -1 -1 2 -1 2 -1 -1 -1 2 -1 2 -1 -1 -1 2 2 2 -1 -1 -1 -1 -1 -1 -1 -1	22

Problemsetter: Abdullah Al Mahmud
Special Thanks To: Manzurur Rahman Khan