

Cryptarithm

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 1024 megabytes

Ris is trying to enter a password using a mouse. The password she needs to enter is an integer sequence b of length m , while her clipboard contains a sequence a of length n . To complete her task, *Ris* may use the following three operations to modify a workspace c that is initially empty:

- Paste: pay a cost of x and append every element of a , in order, to the end of c .
- Scroll: pay a cost of y and increase or decrease one element of c by 1.
- Delete: pay a cost of z and delete one element from c .

You need to help *Ris* find the minimum total cost among all ways to transform c into b .

Input

This problem contains multiple test cases.

The first line contains a positive integer T ($1 \leq T \leq 10^4$), representing the number of test cases.

For each test case:

- The first line contains five integers n, m, x, y, z ($1 \leq n, m \leq 3000, 0 \leq x, y, z \leq 10^6$).
- The second line contains n integers a_i ($0 \leq a_i \leq 10^9$).
- The third line contains m integers b_i ($0 \leq b_i \leq 10^9$).

It is guaranteed that the sum of $n \cdot m$ over all test cases does not exceed 9×10^6 , and that the sum of $n + m$ over all test cases does not exceed 2×10^5 .

Output

For each test case, output one line containing an integer representing the answer.

Example

standard input	standard output
4 6 7 3 2 5 1 1 4 5 1 4 1 9 1 9 8 1 0 3 2 5 6 7 11 45 14 1919 810 1 7 0 0 0 998244353 1 0 1 0 0 0 0 1 1 1000000 1000000 1000000 0 1000000000	63 15872 0 1000000001000000

Note

For the first test case, one optimal sequence of operations is as follows:

- Paste twice. Then c becomes $[1, 1, 4, \mathbf{5}, \mathbf{1}, \mathbf{4}, 1, 1, 4, \mathbf{5}, \mathbf{1}, \mathbf{4}]$.
- Delete 5 elements, keeping the bold elements from the previous line. Then c becomes $[1, \mathbf{5}, 1, \mathbf{4}, \mathbf{5}, 1, \mathbf{4}]$.
- Scroll 16 times to adjust the bold elements from the previous line. Then c becomes $[1, 9, 1, 9, 8, 1, 0]$.

The total cost is $2 \cdot 3 + 16 \cdot 2 + 5 \cdot 5 = 63$.