



Day 7: Garden and flowers.

locked

Problem

Submissions

Leaderboard

Discussions

Laura and Fora happen to go to a garden to collect flowers. Once they finished collecting the flowers they then arranged it in the sequence m that comprised of $x+y$ integer values m_1, m_2, \dots, m_{x+y} . Laura had collected daisies (x) while Fora collected the roses (y).

The sequence $d = d_1, d_2, \dots, d_x$ of daisies consisted of all the daisies of m in the same order as they appeared in the sequence m , while, the sequence $r = r_1, r_2, \dots, r_y$ of roses comprised all the roses of sequence m in the same order as they appeared in m as well. Laura and Fora wrote down these sequences d and r , just when a sudden wind blew all the flowers away and ruined the sequence final m that they created by arranging both the flowers. Now both Laura and Fora are really upset and want to rearrange the flowers in the original sequence m once again. In case there are multiple ways to rearrange the sequence, Fora wants to choose a way to restore that maximizes the value of the function $g(m)$, where, $g(m) = \max(0, m_1, (m_1 + m_2), (m_1 + m_2 + m_3), \dots, (m_1 + m_2 + m_3 + \dots + m_{x+y}))$

Laura needs your help to calculate the maximum possible value of $g(m)$

Input Format

The first line contains one integer h ($1 \leq h \leq 1000$) — the number of test cases. Then the test cases follow. Each test case consists of four lines. The first line of each test case contains one integer x ($1 \leq x \leq 100$). The second line contains x integers $d_1, d_2, d_3, \dots, d_x$ ($-100 \leq d_i \leq 100$). The third line contains one integer y ($1 \leq y \leq 100$). The fourth line contains y integers $r_1, r_2, r_3, \dots, r_y$ ($-100 \leq r_i \leq 100$).

Constraints

- ($1 \leq h \leq 1000$)
- ($1 \leq x \leq 100$)
- ($-100 \leq d_i \leq 100$)
- ($1 \leq y \leq 100$)
- ($-100 \leq r_i \leq 100$)

Output Format

Print the maximum possible value of $g(m)$ for every test case.

Sample Input 0

```
1
9
-3 2 3 1 -1 -1 -2 3 -3
9
2 -2 4 4 -3 4 -1 3 -2
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Sample Output 0

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14
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Explanation 0

maximum possible value of series $d(-3 2 3 1 -1 -1 -2 3 -3)$ is 3 maximum possible value of series $r(2 -2 4 4 -3 4 -1 3 -2)$ is 11 $g(m) = 3+11 = 14$



Submissions: 31

Max Score: 50