Train or Walk

Problem Statement

Chefland has all the cities on a straight line. There are N cities in Chefland numbered 1 to N. City i is located at coordinate x_i on the x-axis. Guru wants to travel from city A to city B. He starts at time $t = 0$. He has the following choices to travel:

1. He can walk 1 metre in P seconds.

2. There is a train that travels from city C to city D which travels 1 metre in Q seconds and starts at time $t = Y$ seconds. Guru can take the train only at city C and leave the train only at city D.

Can you help Guru find the minimum time he will need to travel from city A to B? Note that he cannot board the train after $t = Y$.

Input Format

- The first line will contain T, the number of test cases. Then the test cases follow.

- The first line of each test case contains eight space-separated integers N, A, B, C, D, P, Q, Y.

- The second line of each test case contains N space-separated integers, where the i-th integer represents x_i.

Output Format

For each test case, output a single line containing the minimum travel time.

Constraints

- $1 \leq T \leq 300$

- $2 \leq N \leq 300$

- $-1000 \leq x_i \leq 1000$

- $0 \leq Y \leq 100000$

- $1 \leq A, B, C, D \leq N$

- $A \neq B, C \neq D$

- $1 \leq P, Q \leq 100$

- $x_i < x_j$ if $i < j$

Example Input

```
1
4 1 3 2 4 3 2 4
1 2 3 4
```

Example Output

```
6
```

Explanation

Guru can walk directly in 6 seconds.

If Guru takes the train, then he will need at least 11 seconds.