Cities

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1.5 seconds
Memory limit:	256 megabytes

Early Sunday morning, Rauan went out on a serious mission. To find his friend Hafiz, he drives from Nur-Sultan to Almaty along the M-36 highway. Rauan has a scooter with a fuel tank of infinite capacity, however, he is still a college student so he wants to minimize his expenses.

There are n settlements along the two-way M-36 highway. Settlements are ordered from 1 to n. Rauan's scooter consumes 1 pseudo-liter of fuel to move between two consecutive settlements. Rauan can refuel at city i for a_i tenge per pseudo-liter of fuel.

Initially, the fuel tank is empty. Rauan departs from s-th city, Nur-Sultan, and wants to reach an Almaty, numbered t. Help Rauan to calculate the minimum amount of money he will need to spend on the fuel for his journey.

Input

The first line contains three integers n, s, t ($1 \le s, t \le n \le 10^6$).

The second line contains n integer numbers $a_1, \ldots, a_n$ ($0 \le a_i \le 10^9$).

Output

Print one integer — the minimum amount of money in tenge that Rauan will need to get to the city t.

Scoring

This problem contains 7 subtasks:

1. Sample tests. Worth 0 points.
2. $a_1 = a_2 = \ldots = a_n$. Worth 12 points.
3. $s = 1$. Worth 13 points.
4. $n \le 2000$. Worth 20 points.
5. $a_1 \le a_2 \le \ldots \le a_n$. Worth 15 points.
6. $n \le 10^5$. Worth 25 points.
7. Constraints from statement. Worth 15 points.

Examples

standard input	standard output
5 1 5 5 3 4 2 1	13
5 4 2 3 2 5 5 1	8