Sherlock and Cost

Русский \| □□

Array A contains the elements, $A_1,A_2...A_N$. And array B contains the elements, $B_1,B_2...B_N$. There is a relationship between A_i and B_i, $\forall\ 1 \leq i \leq N$, i.e.,
any element A_i lies between 1 and B_i.

Let cost S of an array A is defined as:

$$S = \sum_{i=2}^{N} |A_i - A_{i-1}|$$

You have to print the largest possible value of S.

Input Format

The first line contains, T, the number of test cases. Each test case contains an integer, N, in first line. The second line of each test case contains N integers that denote the array B.

Output Format

For each test case, print the required answer in one line.

Constraints

$1 \leq T \leq 20$
$1 \leq N \leq 10^5$
$1 \leq B_i \leq 100$

Sample Input

```
1
5
10 1 10 1 10
```

Sample Output

```
36
```

Explanation

The maximum value occurs when $A_1=A_3=A_5=10$ and $A_2=A_4=1$.