Frog 2

Time Limit: 2.0s **Memory Limit:** 1G

There are N stones numbered $1, 2, \ldots, N$. For each i $(1 \leq I \leq N)$, the height of Stone i is h_i.

There is a frog who is initially on Stone 1. He will repeat the following action some number of times to reach Stone N:

If the frog is currently on Stone i, jump to one of the following: Stone $i+1, i+2, \ldots, i+K$. Here, a cost of $|h_i - h_j|$ is incurred, where j is the stone to land on.

Find the minimum possible total cost incurred before the frog reaches Stone N.

Constraints

- All values in input are integers.
- $2 \leq N \leq 10^5$
- $1 \leq K \leq 100$
- $1 \leq h_i \leq 10^4$

Input Specification

The first line of input will contain 2 integers N and K.

The second line of input will contain N spaced integers, h_i the height of stone i.

Output Specification

Output a single integer, the minimum possible total cost incurred.

Sample Input 1

```
5 3
10 30 40 50 20
```

Sample Output 1

```
30
```

Sample Input 2

```
3 1
10 20 10
```

Sample Output 2

```
20
```

Sample Input 3

```
2 100
10 10
```

Sample Output 3

```
0
```

Sample Input 4

```
10 4
40 10 20 70 80 10 20 70 80 60
```

Sample Output 4

```
40
```

Sample Explanations

For the first sample, if we follow the path $1 \rightarrow 2 \rightarrow 5$, the total cost incurred would be

$|10 - 30| + |30 - 20| = 30$.

For the second sample, if we follow the path $1 \to 2 \to 3$, the total cost incurred would be $|10 - 30| + |30 - 20| = 30$.

For the third sample, if we follow the path $1 \to 2$, the total cost i curred would be $|10 - 10| = 0$.

For the fourth sample, if we follow the path $1 \to 4 \to 8 \to 10$, the total cost incurred would be $|40 - 70| + |70 - 70| + |70 - 60| = 40$.