

Problem statement

Link:

https://www.geeksforgeeks.org/problems/minimal-cost/1?utm_source=youtube&utm_medium=collab_striver_ytdescription&utm_campaign=minimal-cost

There are n stones and an array of heights and Geek is standing at stone 1 and can jump to one of the following: Stone $i+1$, $i+2$, ... $i+k$ stone and cost will be $|h_i - h_j|$ is incurred, where j is the stone to land on. Find the minimum possible total cost incurred before the Geek reaches Stone N .

Example 1:

Input:

$n = 5, k = 3$

heights = {10, 30, 40, 50, 20}

Output:

30

Explanation:

Geek will follow the path 1->2->5, the total cost would be $|10 - 30| + |30 - 20| = 30$, which is minimum

Example 2:

Input:

$n = 3, k = 1$

heights = {10, 20, 10}

Output:

20

Explanation:

Geek will follow the path 1->2->3, the total cost would be $|10 - 20| + |20 - 10| = 20$.

Your Task:

You don't need to read input or print anything. Your task is to complete the function `minimizeCost()` which takes the array `height`, and integer `n`, and integer `k` and returns the minimum energy that is lost.

Expected Time Complexity: $O(n*k)$

Expected Space Complexity: $O(n)$

Constraint:

$2 \leq n \leq 105$

$1 \leq k \leq 100$

$1 \leq \text{heights}[i] \leq 104$