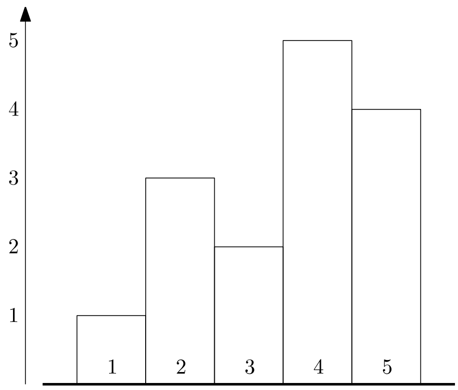
Problem L
Two Buildings
Time Limit: 1 Second

There are n buildings along a horizontal street. The buildings are next to each other along the street, and the i-th building from left to right has width 1 and height h_i. Among the n buildings, we are to find two buildings, say the i-th building and j-th building with $i < j$, such that $(h_i + h_j) * (j - i)$ is maximized.



For example, the right figure shows 5 buildings, with heights 1, 3, 2, 5, 4, from left to right. If we choose the first 2 buildings, then we get $(1 + 3) * (2 - 1) = 4$. If we choose the first and fifth buildings, then we $(1 + 4) * (5 - 1) = 20$. The maximum value is achieved by the second and fifth buildings with heights 3 and 4, respectively: $(3 + 4) * (5 - 2) = 21$.

Write a program that, given a sequence of building heights, prints $\max_{1 \le i < j \le n} (h_i + h_j) * (j - i)$.

Input
Your program is to read from standard input. The input starts with a line containing an integer n ($2 \le n \le 1{,}000{,}000$), where n is the number of buildings. The buildings are numbered 1 to n from left to right. The second line contains the heights of n buildings separated by a space such that the i-th number is the height h_i of the i-th building ($1 \le h_i \le 1{,}000{,}000$).

Output
Your program is to write to standard output. Print exactly one line. The line should contain $\max_{1 \le i < j \le n} (h_i + h_j) * (j - i)$.

The following shows sample input and output for two test cases.

Sample Input 1	Output for the Sample Input 1
5 1 3 2 5 4	21

Sample Input 2	Output for the Sample Input 2
5 8 3 6 3 1	36