# 1499. Max Value of Equation

## Description

You are given an array `points` containing the coordinates of points on a 2D plane, sorted by the x-values, where `points[i] = [x_i, y_i]` such that `x_i < x_j` for all `1 <= i < j <= points.length`. You are also given an integer `k`.

Return *the maximum value of the equation* `y_i + y_j + |x_i - x_j|` where `|x_i - x_j| <= k` and `1 <= i < j <= points.length`.

It is guaranteed that there exists at least one pair of points that satisfy the constraint `|x_i - x_j| <= k`.

### Example 1:

```
Input: points = [[1,3],[2,0],[5,10],[6,-10]], k = 1
Output: 4
Explanation: The first two points satisfy the condition |x_i - x_j| <= 1 and if we calculate the equation we get 3 + 0 + |1 - 2| = 4. Third and fourth points also satisfy the condition and give a value of 10 + -10 + |5 - 6| = 1.
No other pairs satisfy the condition, so we return the max of 4 and 1.
```

### Example 2:

```
Input: points = [[0,0],[3,0],[9,2]], k = 3
Output: 3
Explanation: Only the first two points have an absolute difference of 3 or less in the x-values, and give the value of 0 + 0 + |0 - 3| = 3.
```

### Constraints:

- `2 <= points.length <= 10^5`
- `points[i].length == 2`
- `-10^8 <= x_i, y_i <= 10^8`
- `0 <= k <= 2 * 10^8`
- `x_i < x_j` for all `1 <= i < j <= points.length`
- `x_i` form a strictly increasing sequence.