You are given an integer array nums and an integer k.

Find the longest subsequence of nums that meets the following requirements:

* The subsequence is **strictly increasing** and
* The difference between adjacent elements in the subsequence is **at most** k.

Return *the length of the* ***longest******subsequence*** *that meets the requirements.*

A **subsequence** is an array that can be derived from another array by deleting some or no elements without changing the order of the remaining elements.

**Example 1:**

Input: nums = [4,2,1,4,3,4,5,8,15], k = 3  
Output: 5  
Explanation:  
The longest subsequence that meets the requirements is [1,3,4,5,8].  
The subsequence has a length of 5, so we return 5.  
Note that the subsequence [1,3,4,5,8,15] does not meet the requirements because 15 - 8 = 7 is larger than 3.

**Example 2:**

Input: nums = [7,4,5,1,8,12,4,7], k = 5  
Output: 4  
Explanation:  
The longest subsequence that meets the requirements is [4,5,8,12].  
The subsequence has a length of 4, so we return 4.

**Example 3:**

Input: nums = [1,5], k = 1  
Output: 1  
Explanation:  
The longest subsequence that meets the requirements is [1].  
The subsequence has a length of 1, so we return 1.

**Constraints:**

* 1 <= nums.length <= 105
* 1 <= nums[i], k <= 105