

Check If All 1's Are at Least Length K Places Away

Given an binary array nums and an integer k, return true if all 1's are at least k places away from each other, otherwise return false.

Example 1:

Input: nums = [1,0,0,0,1,0,0,1], k = 2

Output: true

Explanation: Each of the 1s are at least 2 places away from each other.

Program:

```
def k_length_apart(nums, k):  
    last_index = -1  
    for i in range(len(nums)):  
        if nums[i] == 1:  
            if last_index != -1 and i - last_index - 1 < k:  
                return False  
            last_index = i  
    return True
```

```
nums = [1, 0, 0, 0, 1, 0, 0, 1]
```

```
k = 2
```

```
print(k_length_apart(nums, k))
```

Output:

```
C:\Users\srika\Desktop\CSA0863\pythonProject\.venv\Scripts\python.exe "C:\Users\srika\Desktop\CSA0863\pythonProject\DAAD\COADS.PYTHON\program 51.py"
True

Process finished with exit code 0
```

Time complexity:
 $O(N)$