# Problem 713: Subarray Product Less Than K

## Problem Information

**Difficulty:** Medium
**Acceptance Rate:** 53.47%
**Paid Only:** No
**Tags:** Array, Binary Search, Sliding Window, Prefix Sum

## Problem Description

Given an array of integers `nums` and an integer `k`, return _the number of contiguous subarrays where the product of all the elements in the subarray is strictly less than_`k`.

**Example 1:**

**Input:** nums = [10,5,2,6], k = 100 **Output:** 8 **Explanation:** The 8 subarrays that have product less than 100 are: [10], [5], [2], [6], [10, 5], [5, 2], [2, 6], [5, 2, 6] Note that [10, 5, 2] is not included as the product of 100 is not strictly less than k.

**Example 2:**

**Input:** nums = [1,2,3], k = 0 **Output:** 0

**Constraints:**

* `1 <= nums.length <= 3 * 104` * `1 <= nums[i] <= 1000` * `0 <= k <= 106`

## Code Snippets

**C++:**

```
class Solution {
public:
int numSubarrayProductLessThanK(vector<int>& nums, int k) {
```

```
}
};
```

**Java:**

```
class Solution {
public int numSubarrayProductLessThanK(int[] nums, int k) {

}
}
```

**Python3:**

```
class Solution:
def numSubarrayProductLessThanK(self, nums: List[int], k: int) -> int:
```