

2941. Maximum GCD-Sum of a Subarray

Description

You are given an array of integers `nums` and an integer `k`.

The **gcd-sum** of an array `a` is calculated as follows:

- Let `s` be the sum of all the elements of `a`.
- Let `g` be the **greatest common divisor** of all the elements of `a`.
- The gcd-sum of `a` is equal to `s * g`.

Return *the maximum gcd-sum of a subarray of `nums` with at least `k` elements*.

Example 1:

Input: `nums = [2,1,4,4,4,2]`, `k = 2`

Output: 48

Explanation: We take the subarray `[4,4,4]`, the gcd-sum of this array is $4 * (4 + 4 + 4) = 48$.

It can be shown that we can not select any other subarray with a gcd-sum greater than 48.

Example 2:

Input: `nums = [7,3,9,4]`, `k = 1`

Output: 81

Explanation: We take the subarray `[9]`, the gcd-sum of this array is $9 * 9 = 81$.

It can be shown that we can not select any other subarray with a gcd-sum greater than 81.

Constraints:

- `n == nums.length`
- `1 <= n <= 105`
- `1 <= nums[i] <= 106`
- `1 <= k <= n`

