You are given an array nums of n positive integers.

You can perform two types of operations on any element of the array any number of times:

* If the element is **even**, **divide** it by 2.
  + For example, if the array is [1,2,3,4], then you can do this operation on the last element, and the array will be [1,2,3,2].
* If the element is **odd**, **multiply** it by 2.
  + For example, if the array is [1,2,3,4], then you can do this operation on the first element, and the array will be [2,2,3,4].

The **deviation** of the array is the **maximum difference** between any two elements in the array.

Return *the* ***minimum deviation*** *the array can have after performing some number of operations.*

**Example 1:**

Input: nums = [1,2,3,4]  
Output: 1  
Explanation: You can transform the array to [1,2,3,2], then to [2,2,3,2], then the deviation will be 3 - 2 = 1.

**Example 2:**

Input: nums = [4,1,5,20,3]  
Output: 3  
Explanation: You can transform the array after two operations to [4,2,5,5,3], then the deviation will be 5 - 2 = 3.

**Example 3:**

Input: nums = [2,10,8]  
Output: 3

**Constraints:**

* n == nums.length
* 2 <= n <= 5 \* 104
* 1 <= nums[i] <= 109