2708. Maximum Strength of a Group

Description

You are given a **0-indexed** integer array $\begin{bmatrix} nums \end{bmatrix}$ representing the score of students in an exam. The teacher would like to form one **non-empty** group of students with maximal **strength**, where the strength of a group of students of indices $\begin{bmatrix} i \\ 0 \end{bmatrix}$, $\begin{bmatrix} i \\ 1 \end{bmatrix}$, $\begin{bmatrix} i \\ 2 \end{bmatrix}$, ..., $\begin{bmatrix} i \\ k \end{bmatrix}$ is defined as $\begin{bmatrix} nums \\ i \\ 0 \end{bmatrix}$ * $\begin{bmatrix} nums \\$

Return the maximum strength of a group the teacher can create.

Example 1:

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Input: nums = [3,-1,-5,2,5,-9]
Output: 1350
Explanation: One way to form a group of maximal strength is to group the students at indices [0,2,3,4,5]. Their strength is 3 * (-5) * 2 * 5 * (-9)
= 1350, which we can show is optimal.
```

Example 2:

```
Input: nums = [-4,-5,-4]
Output: 20
Explanation: Group the students at indices [0, 1] . Then, we'll have a resulting strength of 20. We cannot achieve greater strength.
```

Constraints:

- 1 <= nums.length <= 13
- -9 <= nums[i] <= 9