

## 2874. Maximum Value of an Ordered Triplet II

Solved ●

Medium  Topics  Companies  Hint

You are given a **0-indexed** integer array `nums`.

Return **the maximum value over all triplets of indices**  $(i, j, k)$  *such that*  $i < j < k$ . If all such triplets have a negative value, return `0`.

The **value of a triplet of indices**  $(i, j, k)$  is equal to  $(\text{nums}[i] - \text{nums}[j]) * \text{nums}[k]$ .

### Example 1:

**Input:** `nums = [12,6,1,2,7]`**Output:** `77`**Explanation:** The value of the triplet (0, 2, 4) is  $(\text{nums}[0] - \text{nums}[2]) * \text{nums}[4] = 77$ .

It can be shown that there are no ordered triplets of indices with a value greater than 77.

### Example 2:

**Input:** `nums = [1,10,3,4,19]`**Output:** `133`**Explanation:** The value of the triplet (1, 2, 4) is  $(\text{nums}[1] - \text{nums}[2]) * \text{nums}[4] = 133$ .

It can be shown that there are no ordered triplets of indices with a value greater than 133.

### Example 3:

**Input:** `nums = [1,2,3]`**Output:** `0`**Explanation:** The only ordered triplet of indices (0, 1, 2) has a negative value of  $(\text{nums}[0] - \text{nums}[1]) * \text{nums}[2] = -3$ . Hence, the answer would be 0.


### Constraints:

- $3 \leq \text{nums.length} \leq 10^5$
- $1 \leq \text{nums}[i] \leq 10^6$

Seen this question in a real interview before? 1/5

Yes No

Accepted **150.7K** Submissions **265.6K** Acceptance Rate **56.8%**

Topics Companies Hint 1 Hint 2 Hint 3 Similar Questions Discussion (191) 