2433. Find The Original Array of Prefix Xor

Solved ●

Medium Topics Companies Hint

You are given an **integer** array `pref` of size `n`. Find and return *the array* `arr` *of size* `n` *that satisfies*:

- `pref[i] = arr[0] ^ arr[1] ^ ... ^ arr[i]`.

Note that `^` denotes the **bitwise-xor** operation.

It can be proven that the answer is **unique**.

Example 1:

> **Input:** pref = [5,2,0,3,1]
> **Output:** [5,7,2,3,2]
> **Explanation:** From the array [5,7,2,3,2] we have the following:
> - pref[0] = 5.
> - pref[1] = 5 ^ 7 = 2.
> - pref[2] = 5 ^ 7 ^ 2 = 0.
> - pref[3] = 5 ^ 7 ^ 2 ^ 3 = 3.
> - pref[4] = 5 ^ 7 ^ 2 ^ 3 ^ 2 = 1.

Example 2:

> **Input:** pref = [13]
> **Output:** [13]
> **Explanation:** We have pref[0] = arr[0] = 13.

Constraints:

- $1 <= pref.length <= 10^5$
- $0 <= pref[i] <= 10^6$

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Yes No

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