

2300. Successful Pairs of Spells and Potions

Medium

 Topics

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 Hint

You are given two positive integer arrays `spells` and `potions`, of length `n` and `m` respectively, where `spells[i]` represents the strength of the i^{th} spell and `potions[j]` represents the strength of the j^{th} potion.

You are also given an integer `success`. A spell and potion pair is considered **successful** if the **product** of their strengths is **at least** `success`.

Return *an integer array* `pairs` of length `n` where `pairs[i]` is the number of ***potions*** that will form a successful pair with the i^{th} spell.

Example 1:

Input: `spells = [5,1,3]`, `potions = [1,2,3,4,5]`, `success = 7`
Output: `[4,0,3]`
Explanation:

- 0^{th} spell: `5 * [1,2,3,4,5] = [5,10,15,20,25]`. 4 pairs are successful.
- 1^{st} spell: `1 * [1,2,3,4,5] = [1,2,3,4,5]`. 0 pairs are successful.
- 2^{nd} spell: `3 * [1,2,3,4,5] = [3,6,9,12,15]`. 3 pairs are successful.

Thus, `[4,0,3]` is returned.

Example 2:

Input: `spells = [3,1,2]`, `potions = [8,5,8]`, `success = 16`
Output: `[2,0,2]`
Explanation:

- 0^{th} spell: `3 * [8,5,8] = [24,15,24]`. 2 pairs are successful.
- 1^{st} spell: `1 * [8,5,8] = [8,5,8]`. 0 pairs are successful.
- 2^{nd} spell: `2 * [8,5,8] = [16,10,16]`. 2 pairs are successful.

Thus, `[2,0,2]` is returned.

Constraints:

- `n == spells.length`
- `m == potions.length`
- `1 <= n, m <= 105`
- `1 <= spells[i], potions[i] <= 105`
- `1 <= success <= 1010`

Seen this question in a real interview before? 1/4

Yes

No

Accepted

129.2K

Submissions

305.9K

Acceptance Rate

42.2%

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 Hint 1

 Hint 2

 Hint 3

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