75 Days of Code
Day 54
Problem no : 2300.
Problem Title :Successful Pairs of Spells and Potions
Problem type : Binary Search

You are given two positive integer arrays spells and potions, of length n and m respectively, where spells[i] represents the strength of the ith spell and potions[j] represents the strength of the jth 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 ith spell.

Example 1:

Input: spells = [5,1,3], potions = [1,2,3,4,5], success = 7
Output: [4,0,3]
Explanation:
- 0th spell: 5 * [1,2,3,4,5] = [5,10,15,20,25]. 4 pairs are successful.
- 1st spell: 1 * [1,2,3,4,5] = [1,2,3,4,5]. 0 pairs are successful.
- 2nd 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:

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- 0th spell: 3 * [8,5,8] = [24,15,24]. 2 pairs are successful.
- 1st spell: 1 * [8,5,8] = [8,5,8]. 0 pairs are successful.
- 2nd spell: 2 * [8,5,8] = [16,10,16]. 2 pairs are successful.
Thus, [2,0,2] is returned.