

1735. Count Ways to Make Array With Product

Description

You are given a 2D integer array, `queries`. For each `queries[i]`, where `queries[i] = [ni, ki]`, find the number of different ways you can place positive integers into an array of size `ni` such that the product of the integers is `ki`. As the number of ways may be too large, the answer to the `ith` query is the number of ways **modulo** `109 + 7`.

Return *an integer array* `answer` *where* `answer.length == queries.length`, *and* `answer[i]` *is the answer to the* `ith` *query.*

Example 1:

Input: `queries = [[2,6],[5,1],[73,660]]`

Output: `[4,1,50734910]`

Explanation: Each query is independent.

`[2,6]`: There are 4 ways to fill an array of size 2 that multiply to 6: `[1,6]`, `[2,3]`, `[3,2]`, `[6,1]`.

`[5,1]`: There is 1 way to fill an array of size 5 that multiply to 1: `[1,1,1,1,1]`.

`[73,660]`: There are 1050734917 ways to fill an array of size 73 that multiply to 660. 1050734917 modulo `109 + 7` = 50734910.

Example 2:

Input: `queries = [[1,1],[2,2],[3,3],[4,4],[5,5]]`

Output: `[1,2,3,10,5]`

Constraints:

- `1 <= queries.length <= 104`
- `1 <= ni, ki <= 104`

