1836. Count Ways to Make Array With Product

Difficulty : Hard

https://leetcode.com/problems/count-ways-to-make-array-with-product

You are given a 2D integer array, `queries`. For each `queries[i]`, where `queries[i] = [$n_i$, $k_i$]`, find the number of different ways you can place positive integers into an array of size `$n_i$` such that the product of the integers is `$k_i$`. As the number of ways may be too large, the answer to the `$i^{th}$` query is the number of ways **modulo** `$10^9 + 7$`.

Return *an integer array* `answer` *where* `answer.length == queries.length`*, and* `answer[i]` *is the answer to the* `$i^{th}$` *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 10^9 + 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 <= $10^4$`
- `1 <= $n_i$, $k_i$ <= $10^4$`