

1648. Sell Diminishing-Valued Colored Balls

Description

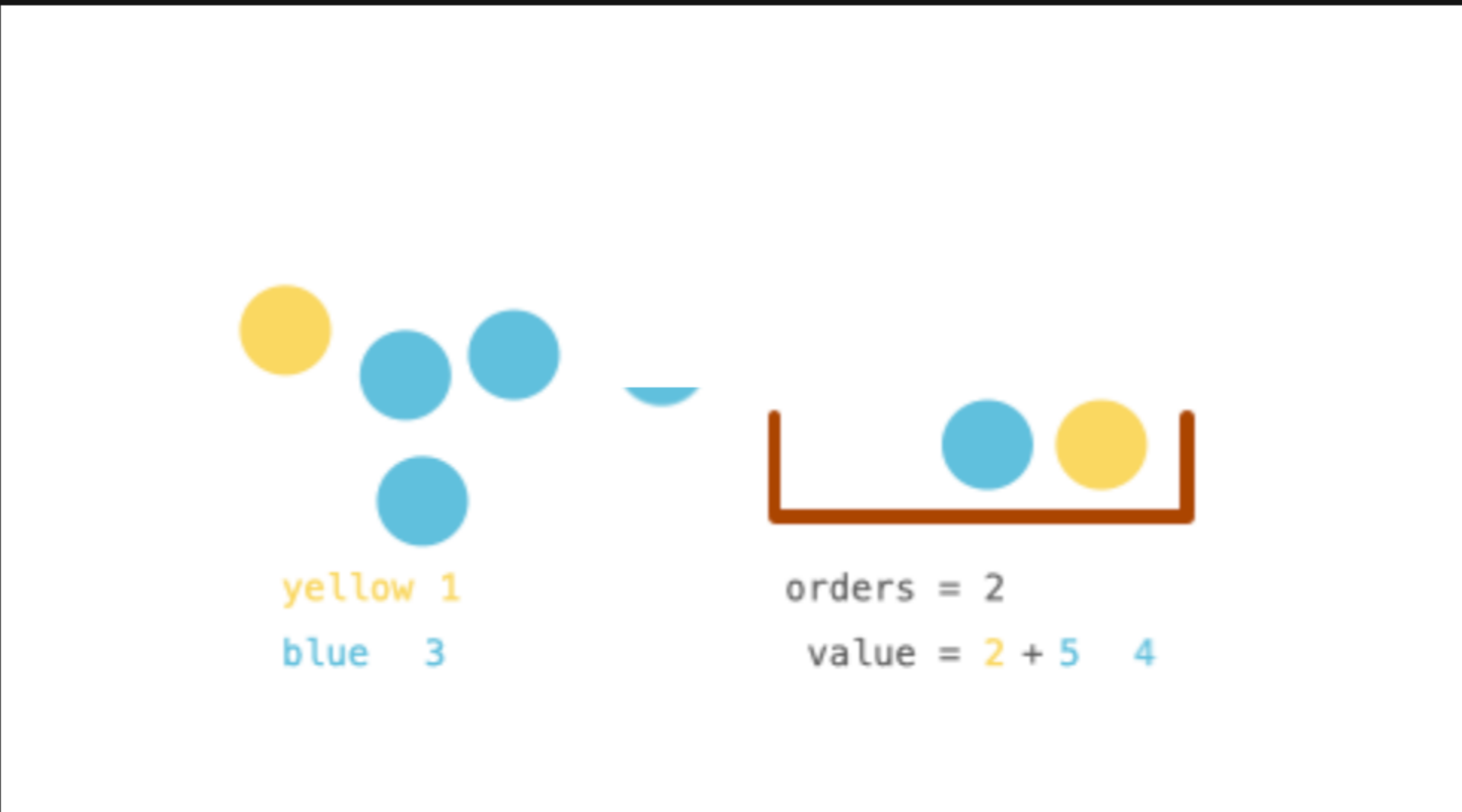
You have an `inventory` of different colored balls, and there is a customer that wants `orders` balls of **any** color.

The customer weirdly values the colored balls. Each colored ball's value is the number of balls **of that color** you currently have in your `inventory`. For example, if you own `6` yellow balls, the customer would pay `6` for the first yellow ball. After the transaction, there are only `5` yellow balls left, so the next yellow ball is then valued at `5` (i.e., the value of the balls decreases as you sell more to the customer).

You are given an integer array, `inventory`, where `inventory[i]` represents the number of balls of the `ith` color that you initially own. You are also given an integer `orders`, which represents the total number of balls that the customer wants. You can sell the balls **in any order**.

Return *the maximum total value that you can attain after selling `orders` colored balls*. As the answer may be too large, return it **modulo** `109 + 7`.

Example 1:



Input: `inventory = [2,5], orders = 4`
Output: 14
Explanation: Sell the 1st color 1 time (2) and the 2nd color 3 times (5 + 4 + 3).
The maximum total value is 2 + 5 + 4 + 3 = 14.

Example 2:

Input: `inventory = [3,5], orders = 6`
Output: 19
Explanation: Sell the 1st color 2 times (3 + 2) and the 2nd color 4 times (5 + 4 + 3 + 2).
The maximum total value is 3 + 2 + 5 + 4 + 3 + 2 = 19.

Constraints:

- `1 <= inventory.length <= 105`
- `1 <= inventory[i] <= 109`
- `1 <= orders <= min(sum(inventory[i]), 109)`

