

6075. Maximum Bags With Full Capacity of Rocks

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You have n bags numbered from 0 to $n - 1$. You are given two **0-indexed** integer arrays `capacity` and `rocks`. The i^{th} bag can hold a maximum of `capacity[i]` rocks and currently contains `rocks[i]` rocks. You are also given an integer `additionalRocks`, the number of additional rocks you can place in **any** of the bags.

Return the **maximum** number of bags that could have full capacity after placing the additional rocks in some bags.

Example 1:

Input: `capacity = [2,3,4,5]`, `rocks = [1,2,4,4]`, `additionalRocks = 2`
Output: 3
Explanation:
Place 1 rock in bag 0 and 1 rock in bag 1.
The number of rocks in each bag are now `[2,3,4,4]`.
Bags 0, 1, and 2 have full capacity.
There are 3 bags at full capacity, so we return 3.
It can be shown that it is not possible to have more than 3 bags at full capacity.
Note that there may be other ways of placing the rocks that result in an answer of 3.

Example 2:

Input: `capacity = [10,2,2]`, `rocks = [2,2,0]`, `additionalRocks = 100`
Output: 3
Explanation:
Place 8 rocks in bag 0 and 2 rocks in bag 2.
The number of rocks in each bag are now `[10,2,2]`.
Bags 0, 1, and 2 have full capacity.
There are 3 bags at full capacity, so we return 3.
It can be shown that it is not possible to have more than 3 bags at full capacity.
Note that we did not use all of the additional rocks.

Constraints:

- $n == \text{capacity.length} == \text{rocks.length}$
- $1 \leq n \leq 5 \times 10^4$
- $1 \leq \text{capacity}[i] \leq 10^9$
- $0 \leq \text{rocks}[i] \leq \text{capacity}[i]$
- $1 \leq \text{additionalRocks} \leq 10^9$

JavaScript

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```
1 const maximumBags = (capacity, rocks, k) => {
2   let n = rocks.length, d = [], res = 0;
3   for (let i = 0; i < n; i++) d.push([rocks[i], capacity[i], capacity[i] - rocks[i]]);
4   d.sort((x, y) => x[2] - y[2]);
5   for (const [x, y, need] of d) {
6     if (need == 0) {
7       res++;
8     } else {
9       if (k >= need) {
10        k -= need;
11        res++;
12      } else {
13        break;
14      }
15    }
16  }
17  return res;
18 };
```

☐ Custom Testcase

Use Example Testcases

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