3155. Maximum Number of Upgradable Servers Premium

Medium | Topics | Companies | Hint

You have `n` data centers and need to upgrade their servers.

You are given four arrays `count`, `upgrade`, `sell`, and `money` of length `n`, which show:

- The number of servers
- The cost of upgrading a single server
- The money you get by selling a server
- The money you initially have

for each data center respectively.

Return an array `answer`, where for each data center, the corresponding element in `answer` represents the **maximum** number of servers that can be upgraded.

Note that the money from one data center **cannot** be used for another data center.

Example 1:

> **Input:** `count = [4,3], upgrade = [3,5], sell = [4,2], money = [8,9]`
>
> **Output:** `[3,2]`
>
> **Explanation:**
>
> For the first data center, if we sell one server, we'll have `8 + 4 = 12` units of money and we can upgrade the remaining 3 servers.
>
> For the second data center, if we sell one server, we'll have `9 + 2 = 11` units of money and we can upgrade the remaining 2 servers.

Example 2:

> **Input:** `count = [1], upgrade = [2], sell = [1], money = [1]`
>
> **Output:** `[0]`

Constraints:

- `1 <= count.length == upgrade.length == sell.length == money.length <= 10^5`
- `1 <= count[i], upgrade[i], sell[i], money[i] <= 10^5`

Seen this question in a real interview before? 1/5

Yes No

Accepted 1.3K | Submissions 2.8K | Acceptance Rate 44.8%

Topics

Array Math Binary Search

Companies

0 - 3 months

Snowflake 2

Hint 1

Use binary search to find the maximum number of servers that can be upgraded for each data center separately.

Discussion (3)