5526. Maximum Number of Achievable Transfer Requests

missions (/contest/weekly-contest-208/problems/maximum-number-of-achievable-transfer-requests/submissions/)

Contest (/contest/weekly-contest-208/)

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

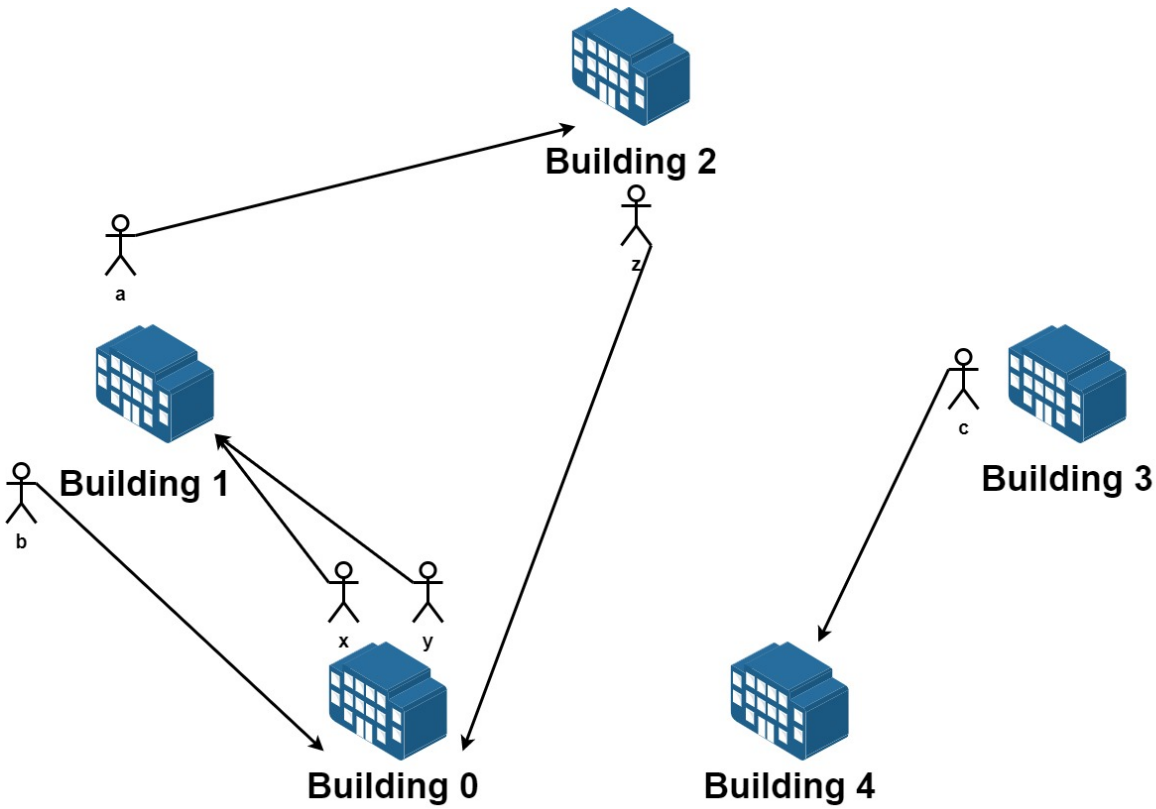
We have `n` buildings numbered from `0` to `n - 1`. Each building has a number of employees. It's transfer season, and some employees want to change the building they reside in.

You are given an array `requests` where `requests[i] = [from_i, to_i]` represents an employee's request to transfer from building `from_i` to building `to_i`.

All buildings are full, so a list of requests is achievable only if for each building, the **net change in employee transfers is zero**. This means the number of employees **leaving** is **equal** to the number of employees **moving in**. For example if `n = 3` and two employees are leaving building `0`, one is leaving building `1`, and one is leaving building `2`, there should be two employees moving to building `0`, one employee moving to building `1`, and one employee moving to building `2`.

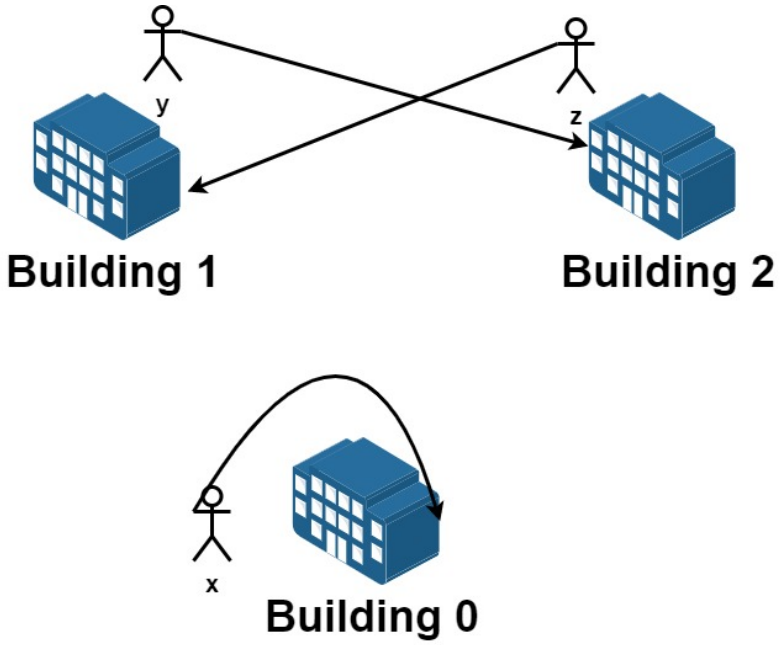
Return *the maximum number of achievable requests*.

Example 1:



```
Input: n = 5, requests = [[0,1],[1,0],[0,1],[1,2],[2,0],[3,4]]
Output: 5
Explantion: Let's see the requests:
From building 0 we have employees x and y and both want to move to building 1.
From building 1 we have employees a and b and they want to move to buildings 2 and 0 respe
From building 2 we have employee z and they want to move to building 0.
From building 3 we have employee c and they want to move to building 4.
From building 4 we don't have any requests.
We can achieve the requests of users x and b by swapping their places.
We can achieve the requests of users y, a and z by swapping the places in the 3 buildings.
```

Example 2:




```
Input: n = 3, requests = [[0,0],[1,2],[2,1]]
Output: 3
Explantion: Let's see the requests:
From building 0 we have employee x and they want to stay in the same building 0.
From building 1 we have employee y and they want to move to building 2.
From building 2 we have employee z and they want to move to building 1.
We can achieve all the requests.
```

Example 3:

```
Input: n = 4, requests = [[0,3],[3,1],[1,2],[2,0]]
Output: 4
```

Constraints:

- 1 <= n <= 20
- 1 <= requests.length <= 16
- requests[i].length == 2
- 0 <= $from_i$, to_i < n