

## 1601. Maximum Number of Achievable Transfer Requests

Solved ●

Hard Topics Hint

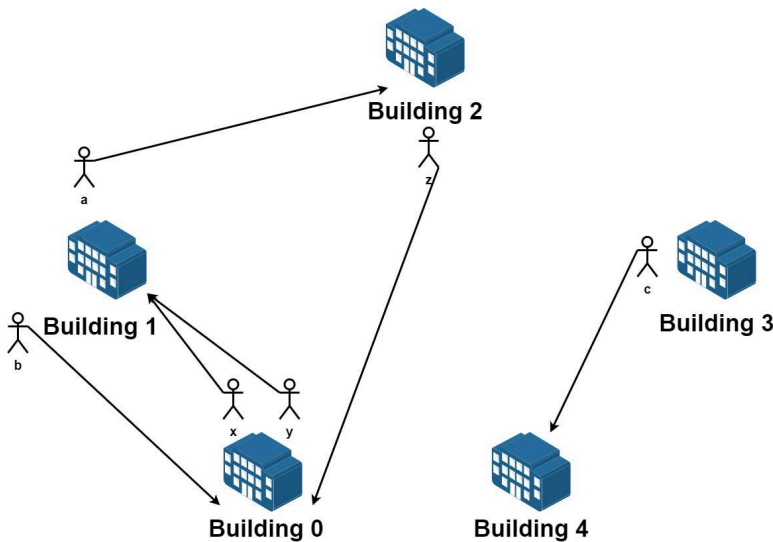
We have  $n$  buildings numbered from  $0$  to  $n - 1$ . Each building has a number of employees. It's transfer season, and some employees want to change the building they reside in.

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

**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

**Explanation:** 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 respectively.

From building 2 we have employee z and they want to move to building 0.

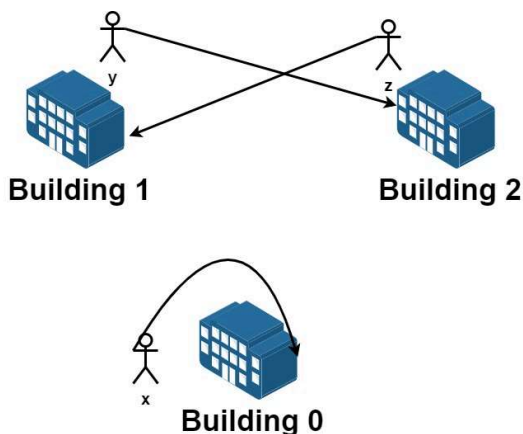
From building 3 we have employee c and they want to move to building 4.

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

**Explanation:** 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<sub>i</sub>, to<sub>i</sub> < n

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

Yes No

Accepted 62,842 / 97.4K | Acceptance Rate 64.5 %

Topics	▼
	▼
Hint 1	▼
Hint 2	▼
Discussion (75)	▼