1264. Page Recommendations

Description

Table: `Friendship`

```
+----------------+----------+
| Column Name  | Type   |
+----------------+----------+
| user1_id    | int    |
| user2_id    | int    |
+----------------+----------+
(user1_id, user2_id) is the primary key (combination of columns with unique values) for this table.
Each row of this table indicates that there is a friendship relation between user1_id and user2_id.
```

Table: `Likes`

```
+--------------+----------+
| Column Name | Type   |
+--------------+----------+
| user_id    | int    |
| page_id    | int    |
+--------------+----------+
(user_id, page_id) is the primary key (combination of columns with unique values) for this table.
Each row of this table indicates that user_id likes page_id.
```

Write a solution to recommend pages to the user with `user_id = 1` using the pages that your friends liked. It should not recommend pages you already liked.

Return result table in **any order** without duplicates.

The result format is in the following example.

Example 1:

```
Input:
Friendship table:
+-----------+-----------+
| user1_id | user2_id |
+-----------+-----------+
| 1         | 2         |
| 1         | 3         |
| 1         | 4         |
| 2         | 3         |
| 2         | 4         |
| 2         | 5         |
| 6         | 1         |
+-----------+-----------+

Likes table:
+----------+----------+
| user_id | page_id |
+----------+----------+
| 1        | 88       |
| 2        | 23       |
| 3        | 24       |
| 4        | 56       |
| 5        | 11       |
| 6        | 33       |
| 2        | 77       |
| 3        | 77       |
| 6        | 88       |
+----------+----------+

Output:
+-------------------+
| recommended_page |
+-------------------+
| 23                |
| 24                |
| 56                |
| 33                |
| 77                |
+-------------------+

Explanation:
User one is friend with users 2, 3, 4 and 6.
Suggested pages are 23 from user 2, 24 from user 3, 56 from user 3 and 33 from user 6.
Page 77 is suggested from both user 2 and user 3.
Page 88 is not suggested because user 1 already likes it.
```