Arcadia Computing Contest 2 P4 - Choose Your Own Adventure!

Time limit: 2.0s **Memory limit:** 256M

Jecka is making a choose-your-own-adventure game. In this genre of video games, there are multiple scenes each with a choice between two different options that lead to different scenes, called choice scenes. There are also ending scenes: scenes that do not have any options. To make her life easier, Jecka represents each scene with a unique integer ID from 1 to $N + M$.

Since Jecka wants to make sure her playerbase is entertained by the game, she needs to fulfill their requirements of the game. Specifically, they will only enjoy a game that has exactly M endings and N non-ending scenes. So, she looks to you to help her design such a game!

Jecka is an organized person, so she wants the IDs of the scenes to satisfy the following rules:

- Scene 1 must be the starting scene; that is, there may not be any choice scenes that lead to it
- Scenes 1 to N must be choice scenes
- Scenes $N + 1$ to $N + M$ must be ending scenes

Additionally, all scenes must be reachable from scene 1 (for completeness!) and no choice scene can have itself as an option (that's boring!).

Can you help her craft a game that follows these requirements?

Constraints

$1 \leq N \leq 2 \times 10^5$

$2 \leq M \leq 2 \times 10^5$

Input Specification

The first line will contain two integers, N and M, the number of choice scenes and ending scenes required, respectively.

Output Specification

Output N lines, each line l_i containing two integers denoting the ID of the scenes that can be reached from scene i. If it is not possible to make a game that fulfills the audience's requirements, output `-1`. If there are multiple possible arrangements, output any.

Sample Input 1

```
1 4
```

Sample Output 1

```
-1
```

Explanation for Sample 1

It is not possible to create a game that has 4 endings but only 1 non-ending scene.

Sample Input 2

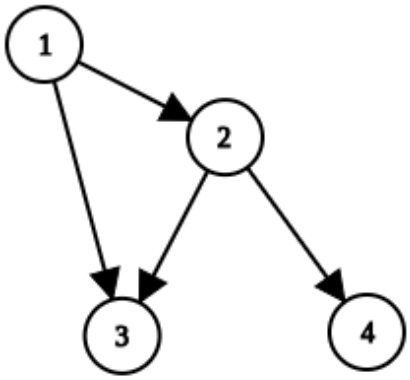
```
2 2
```

Sample Output 2

```
2 3
3 4
```

Explanation for Sample 2

The graph looks like this:



Scenes 3 and 4 are endings while 1 and 2 are choice scenes.