1. You will be given a 2D matrix of size NxM which will contain only dot(.) and hash(#) where dot(.) means you can go in that cell and hash(#) means you can't.

You can move in only 4 directions (Up, Down, Left and Right).

The area of a component is the number of dots(.) in that component you can access. Print all the area of all available components.

Note: If there are no components, print -1.

```
6 5
..#..
..#..
#####
.#...
.####
.....
```

```
4
4
7
3
```

2. You will be given E, the number of edges. For each you will be given A and B which means there is an edge between A and B.
You need to sort all edges in such a way that the edges are sorted in decending order for A.

```
6
1 2
1 4
1 5
```

3 4
3 2
3 5
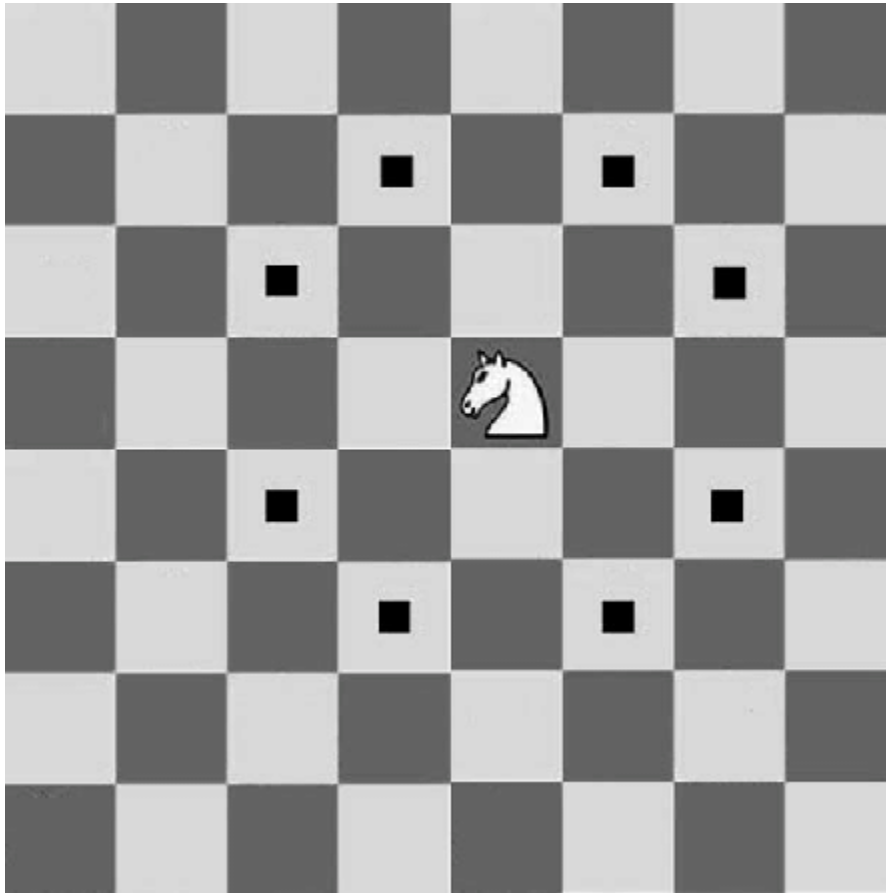
Output :
3 5
3 4
3 2
1 5
1 4

3. You will be given N numbers of nodes, E numbers of edges in a graph. For each edge you will be given A, B and W which means there is a connection from A to B for which you need to give W cost. The value of nodes could be from 1 to N.

You will be given a source node S. find the distance between source to every node

5 7
1 2 10
1 3 2
3 2 1
2 4 7
3 4 2
4 5 5
2 5 2
1

4. You will be given a chessboard of NxM size. You can move anywhere in the chessboard freely. You will be given two cells - the knight's cell K(Ki and Kj), and the queen's cell Q(Qi and Qj). You need to tell the minimum number of steps for the knight to attack the queen **if the queen doesn't move.**

A knight move in 8 directions.

8 8

0 0

7 7

Output :
6