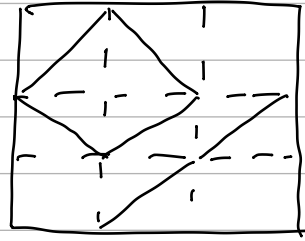


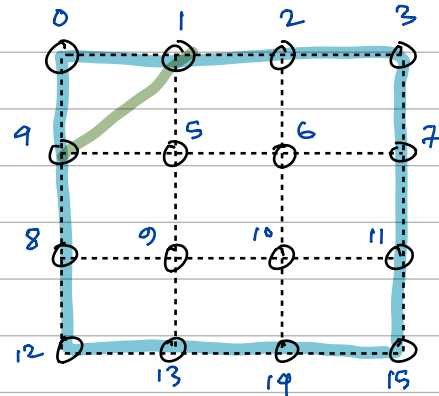
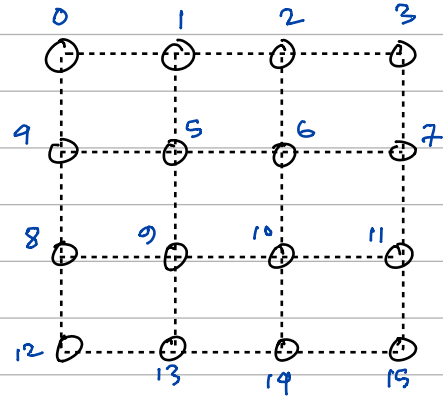
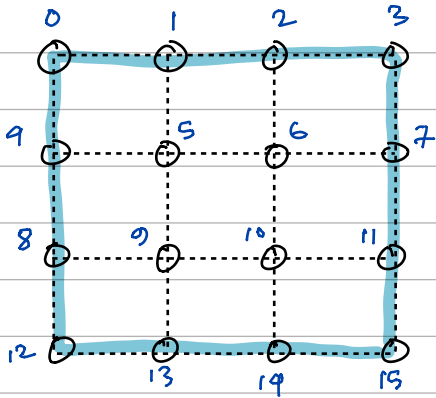
Regions Cut by Slashes :-

input: ["/ \ _",
" \ / /", " _ / _"]



ans: 4

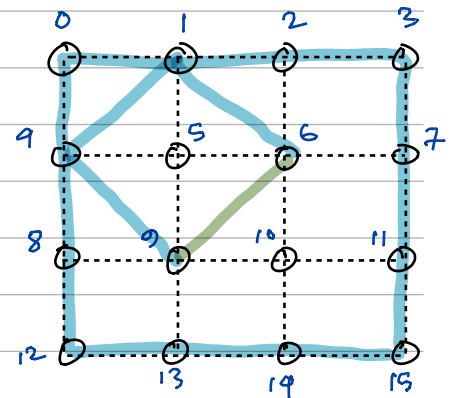
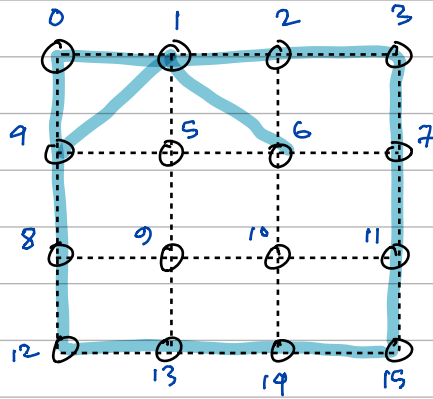
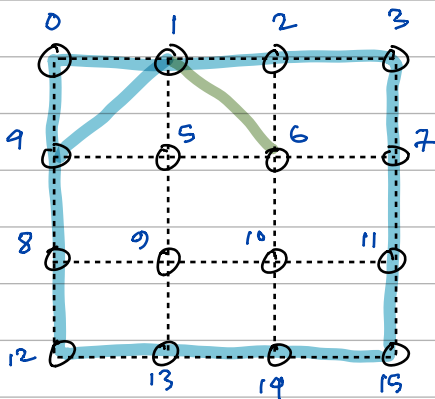
→ It's a DSU Problem



initially no. of Regions
= 1

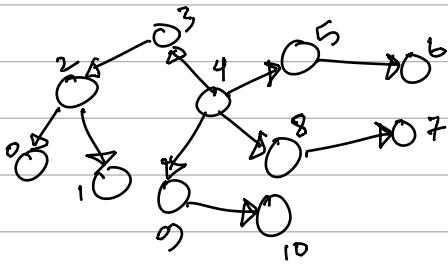
{0, 1, 2, 3, 4, 8, 12, 7, 11, 15,
13, 14}
are connected.

new cycle coming connecting (1, 4)
Regions = 2



new cycle connecting (9, 6)
cycles = 3.

○ Mother Vertex:



vertex from which all other vertices are reachable.

✓✓ DFS. 4 before going to parent
add to stack

```
graph LR; 1((1)) --> 2((2)); 1((1)) --> 4((4)); 2((2)) --> 3((3)); 4((4)) --> 2((2));
```

1
4
2
3

after all are visited (along with many other)
stack.top() is mother vertex or there is no mother vertex.