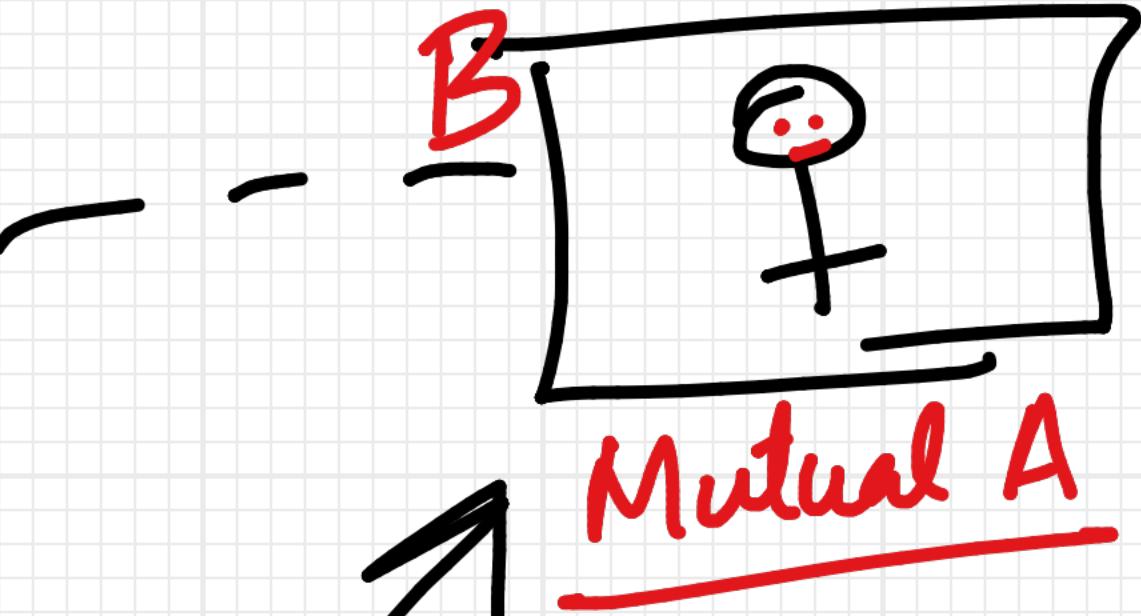
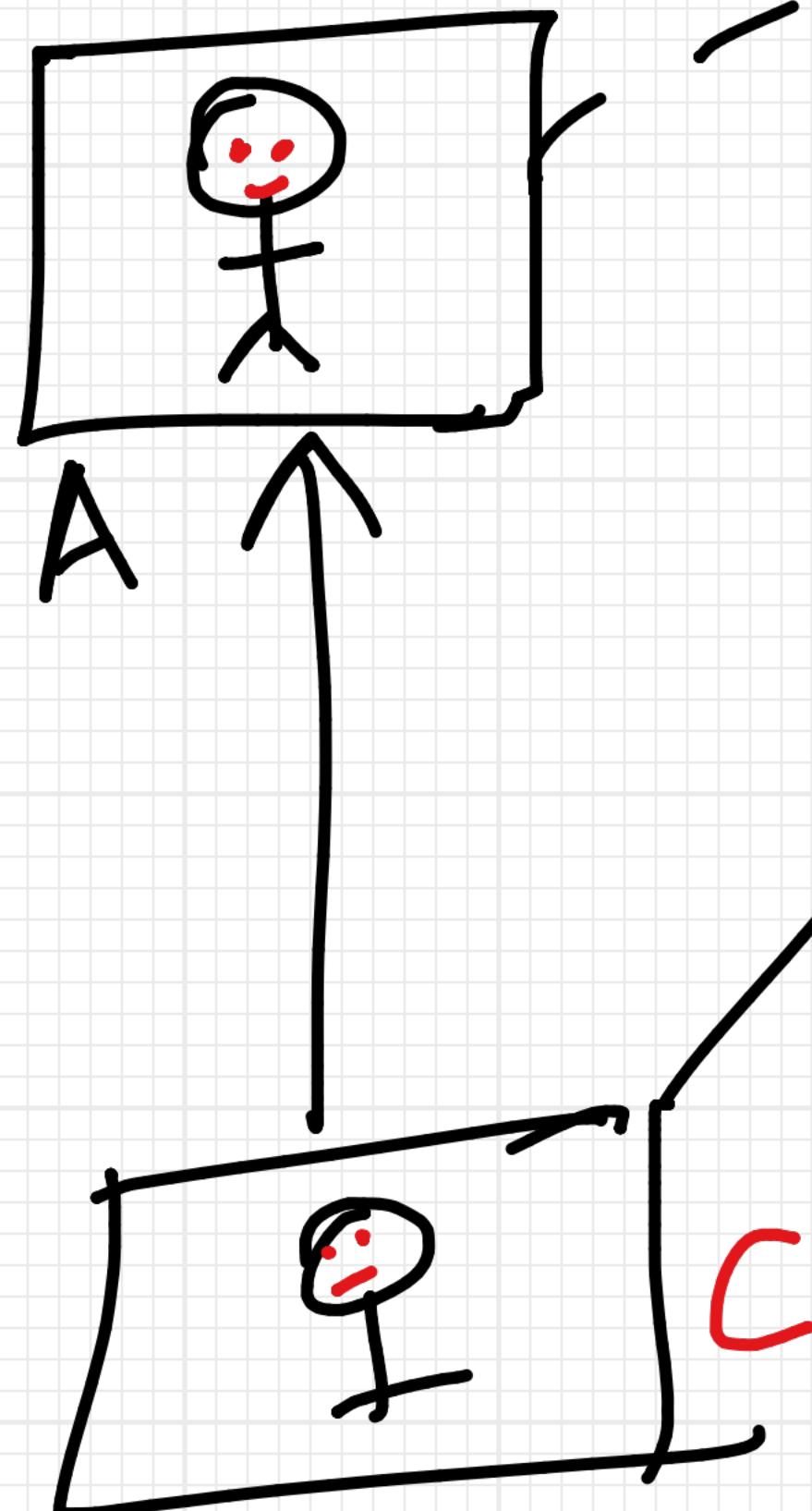
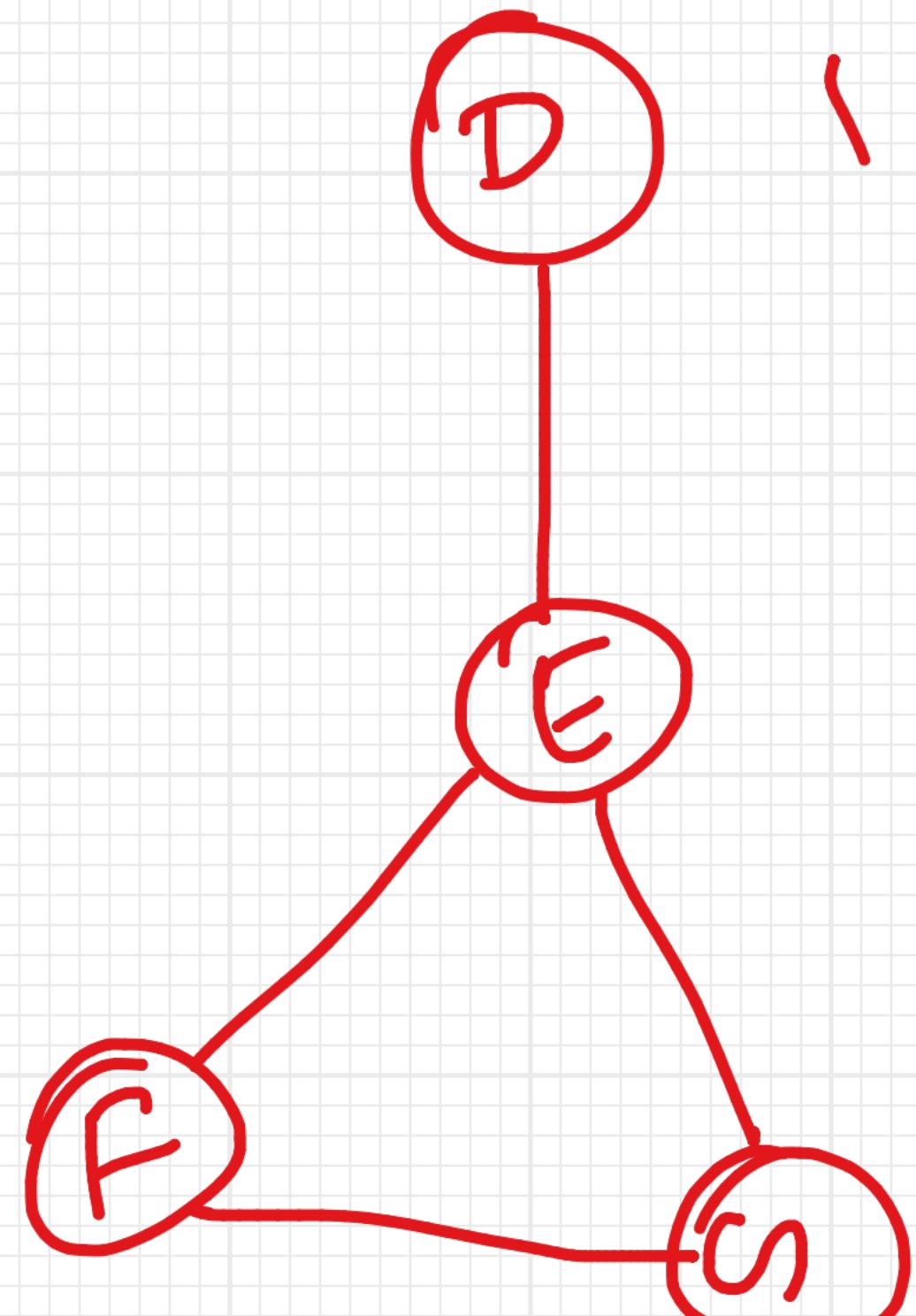
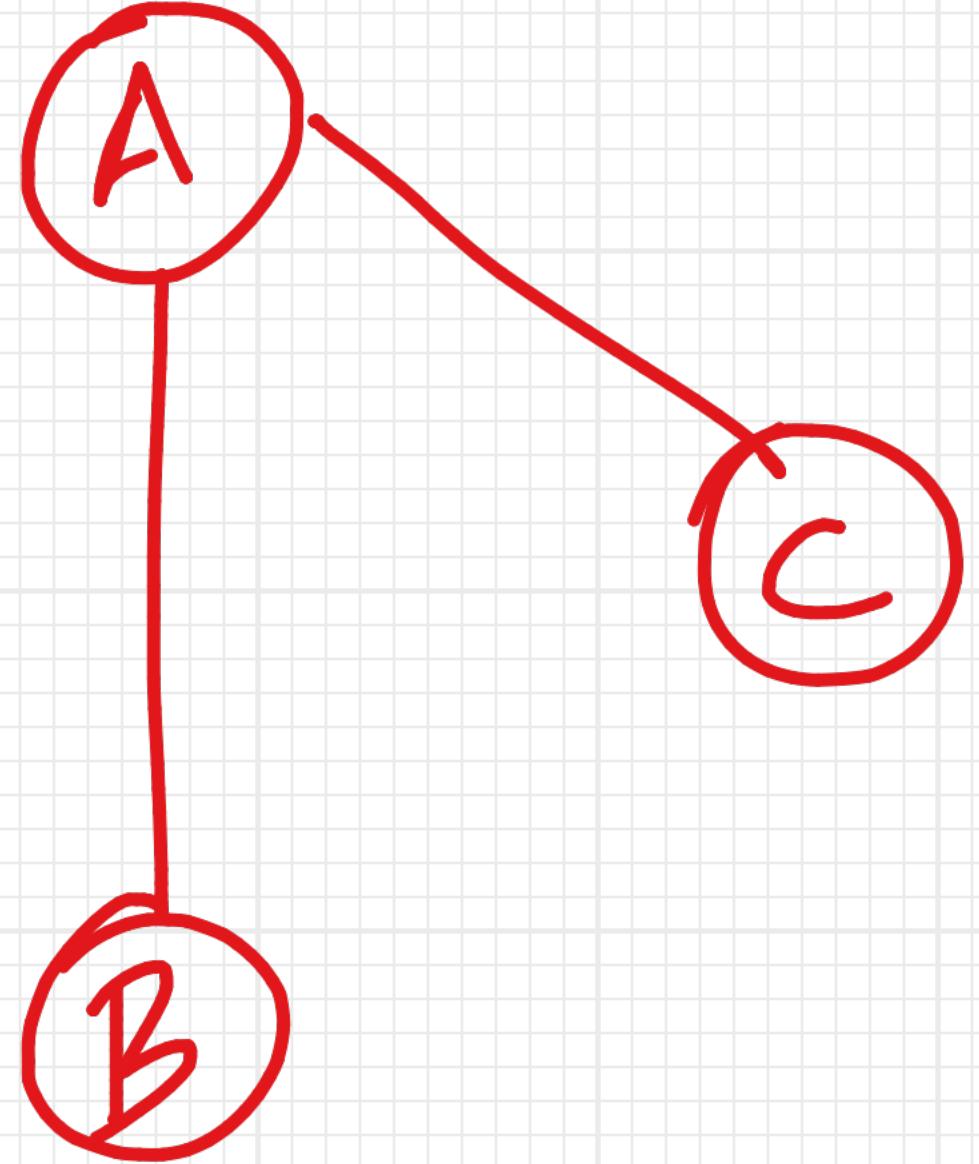


Facebook



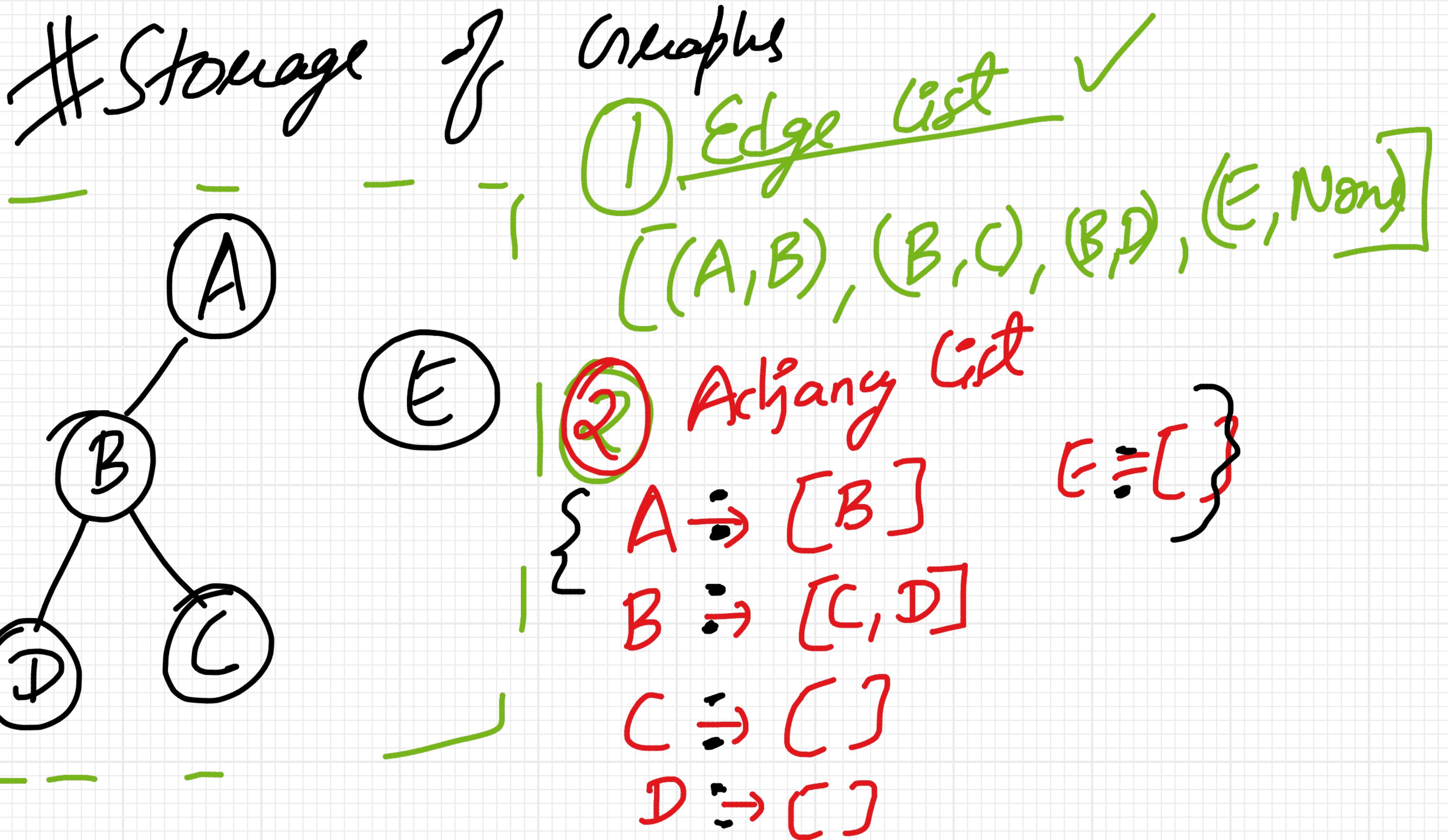
Graph

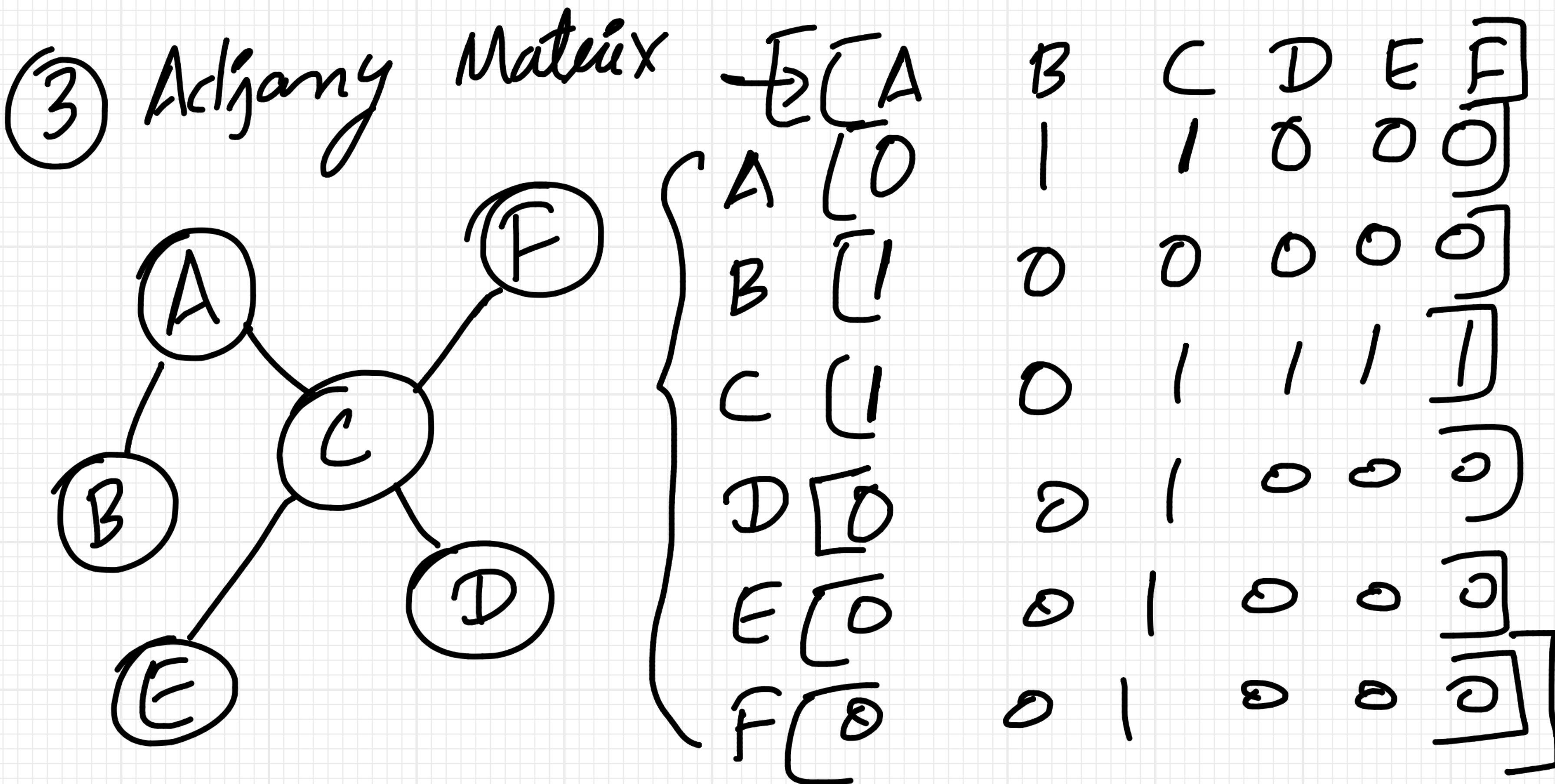


$G(V, E)$

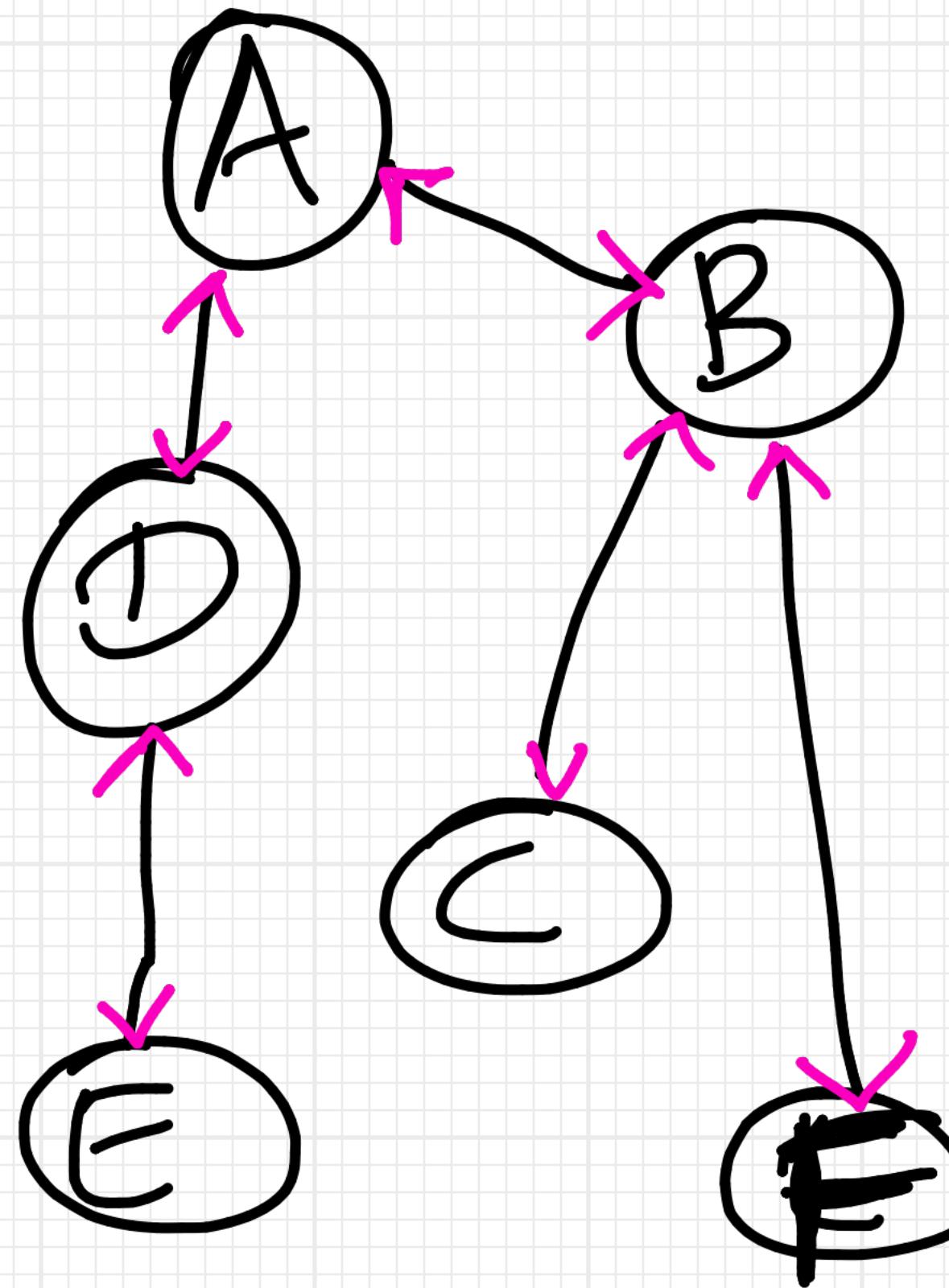
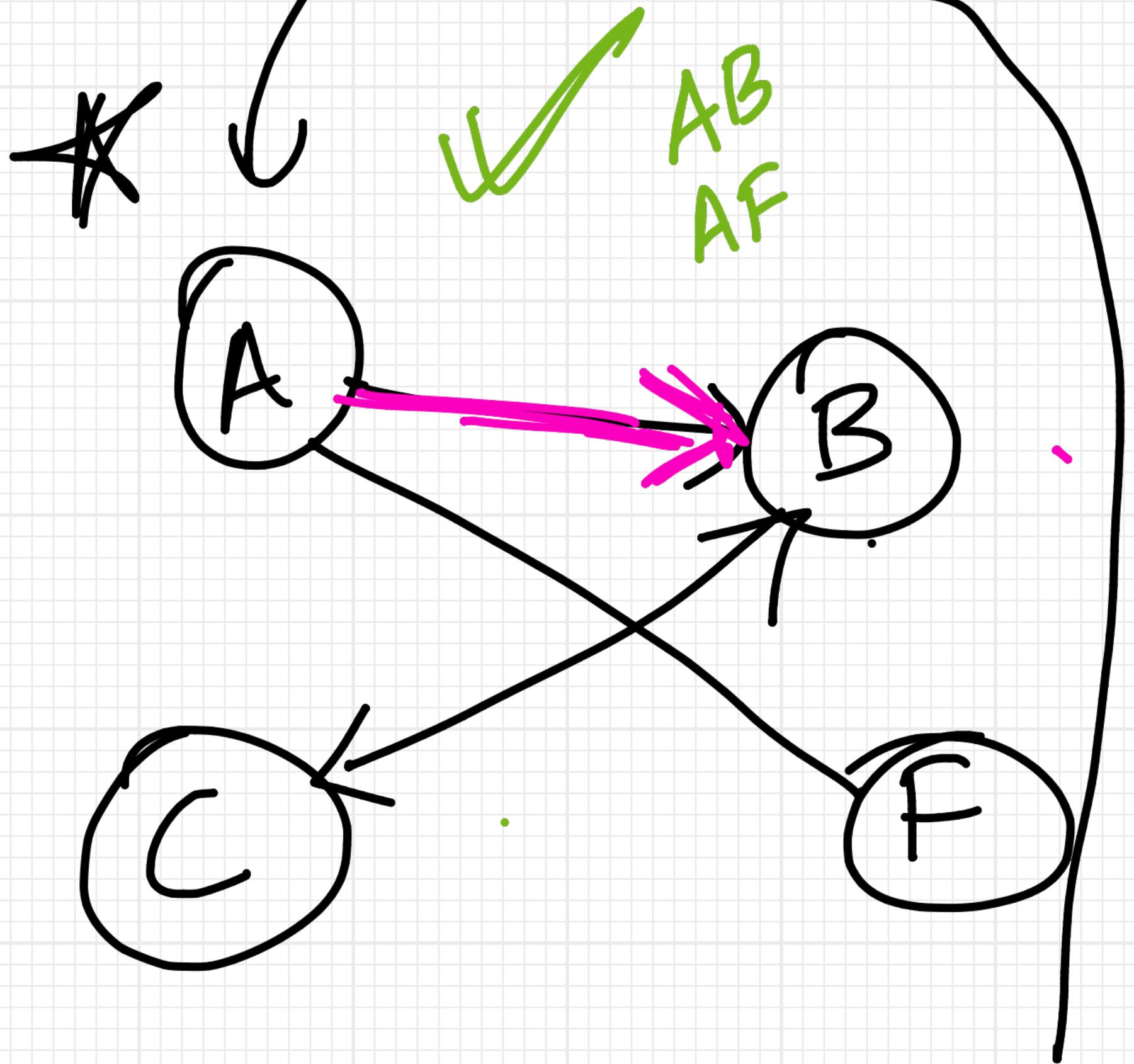
$V = \{A, B, C, D, E, F, G\}$

$E = \{(A, C), (A, B), (D, E), (E, F), (E, G), (G, F)\}$





# # Directed vs Undirected Graph



# # Teraversals in Graphs

→ BFS ✓

→ DFS ✓

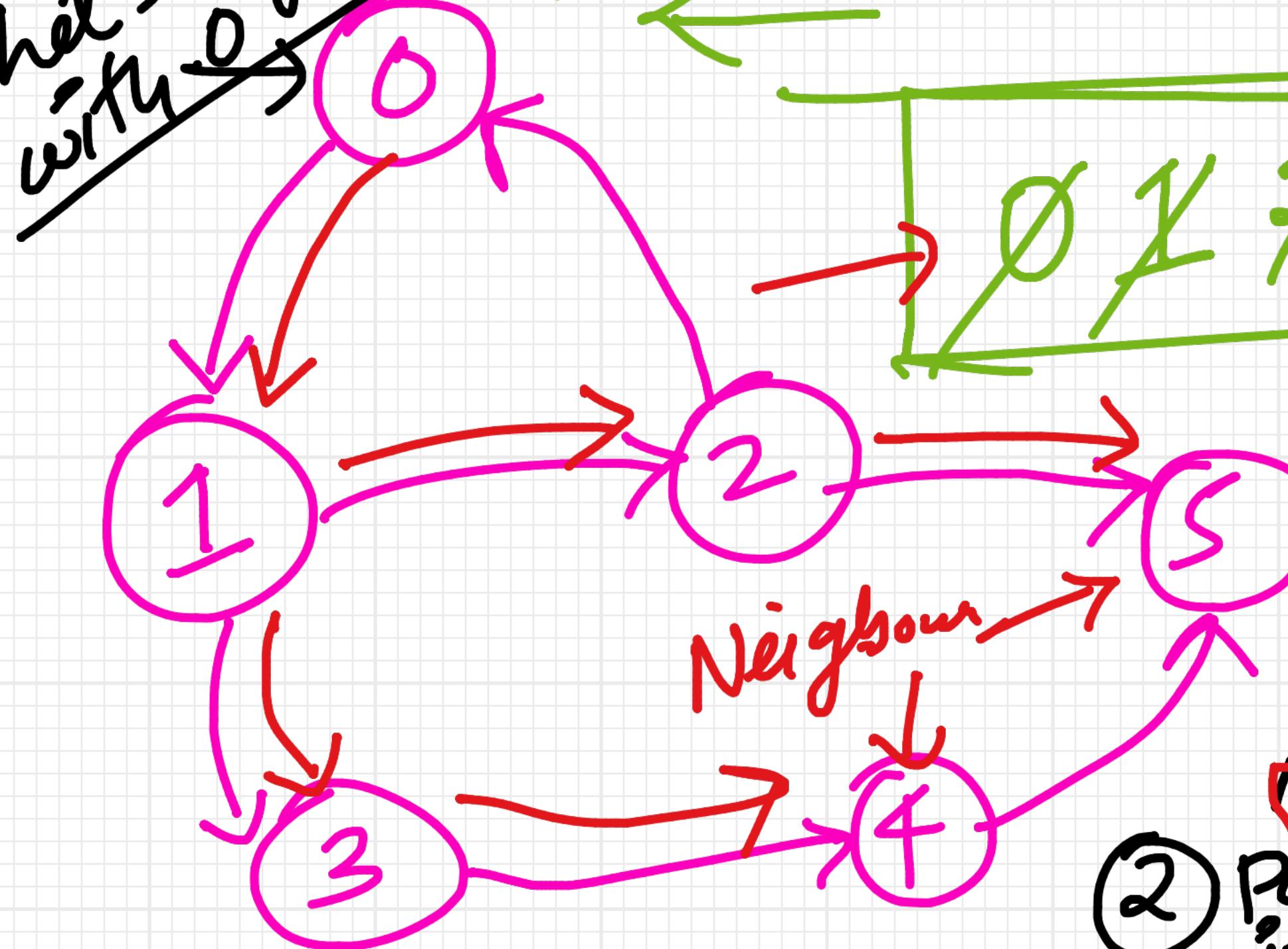
# \* BFS

Start vertex  
net's with 0

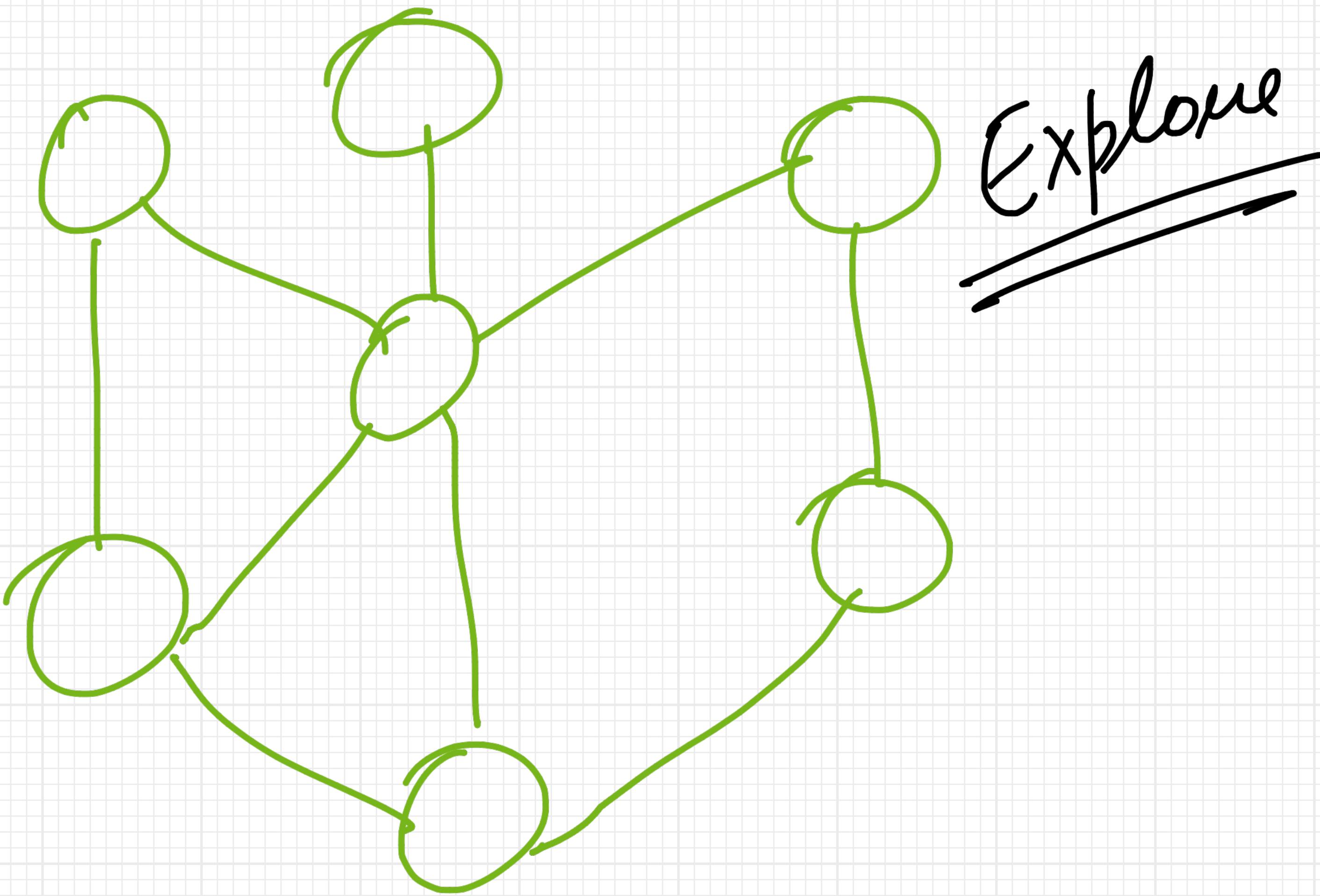
Pop

Queue

Visited = [0, 1, 2, 3]  
BFSX →  
Push



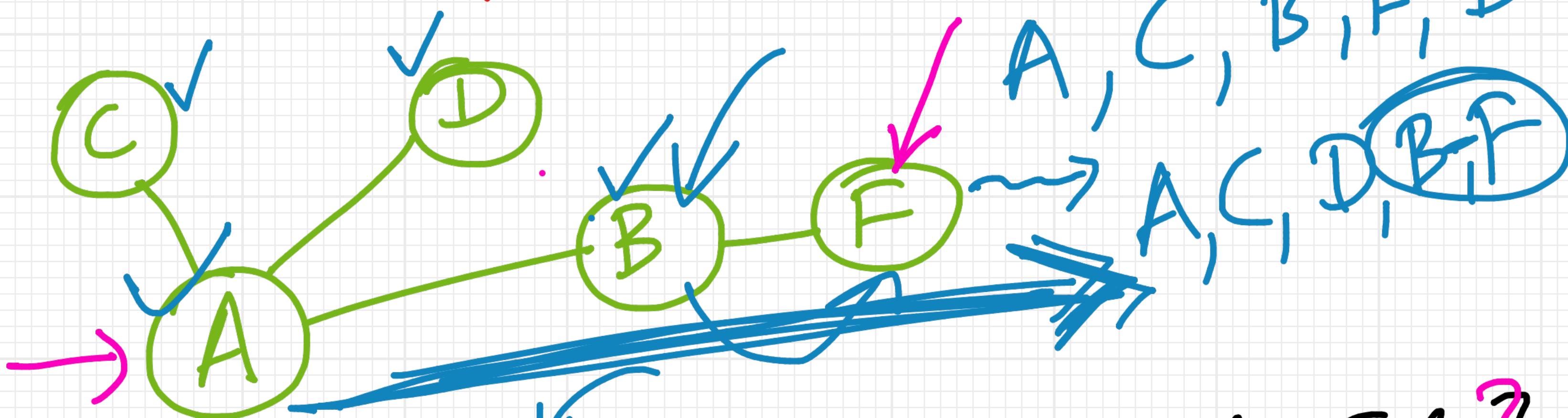
- ① Append to Q & S  
Mark it as Visited.
- ② Pop from front & Visit its neighbours.



~~A~~: [‘B’, ‘C’, ‘D’], ~~B~~: [‘F’], ~~C~~: [],  
~~D~~: [], ~~F~~: []

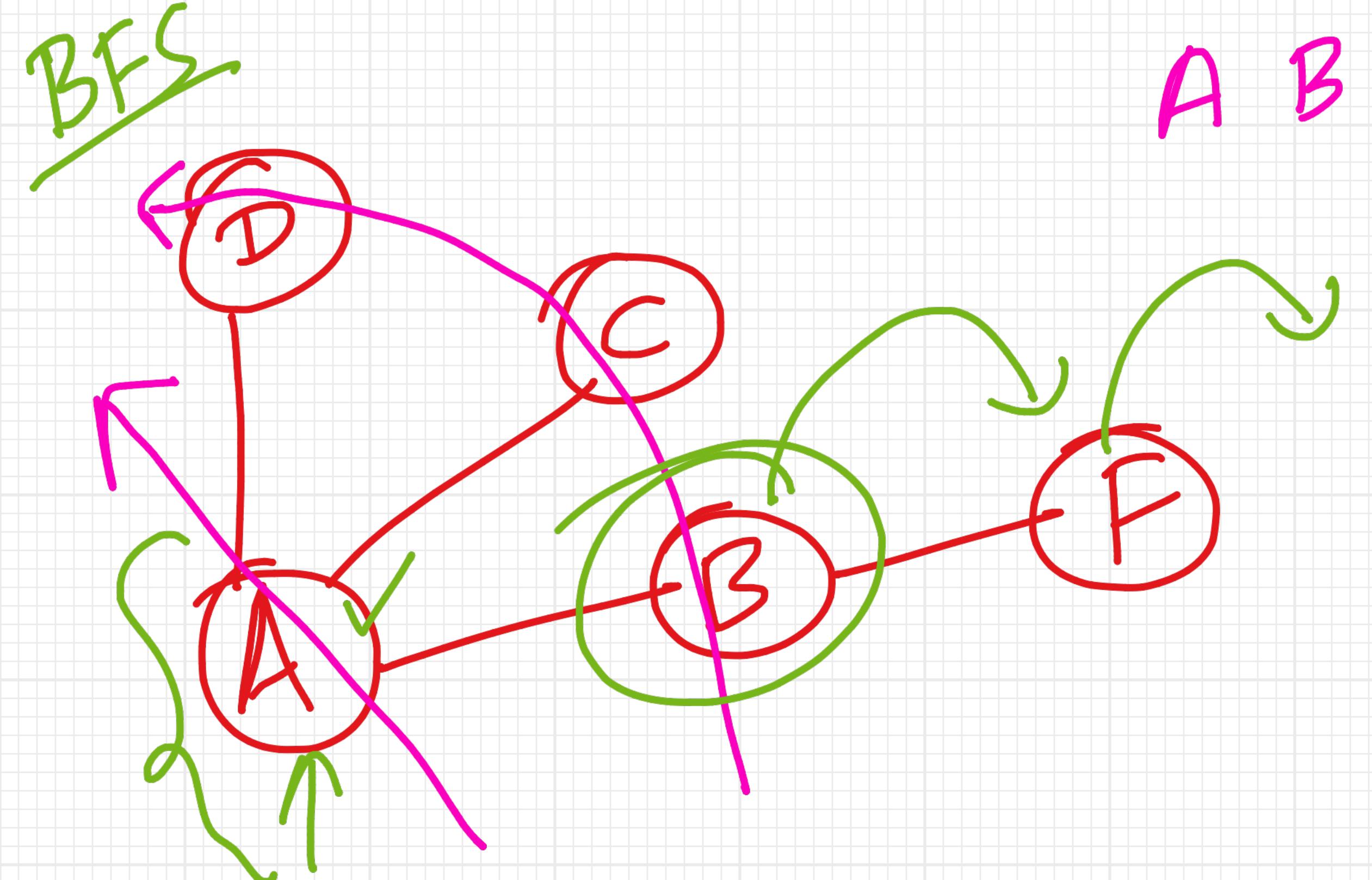
A, B, F, C, D

A, C, B, F, D



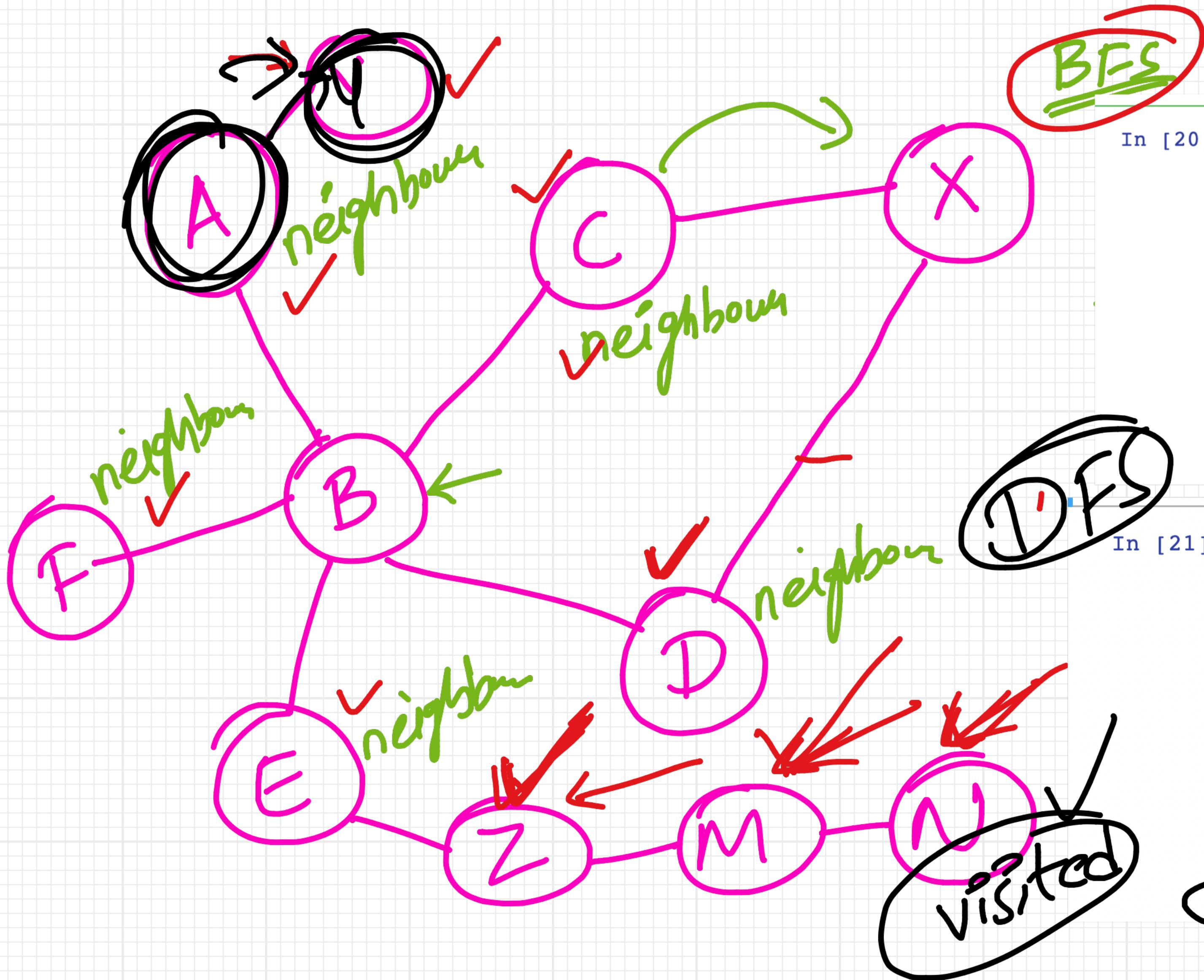
visited = [False, False, False, False, False]  
 A: B: C: D: F:





A B C D, F

Every Tree is a Graph, But every graph  
can not be tree



In [20]: g2.BFS()

B  
F  
A  
E  
D  
C  
Y  
Z  
X  
M  
N

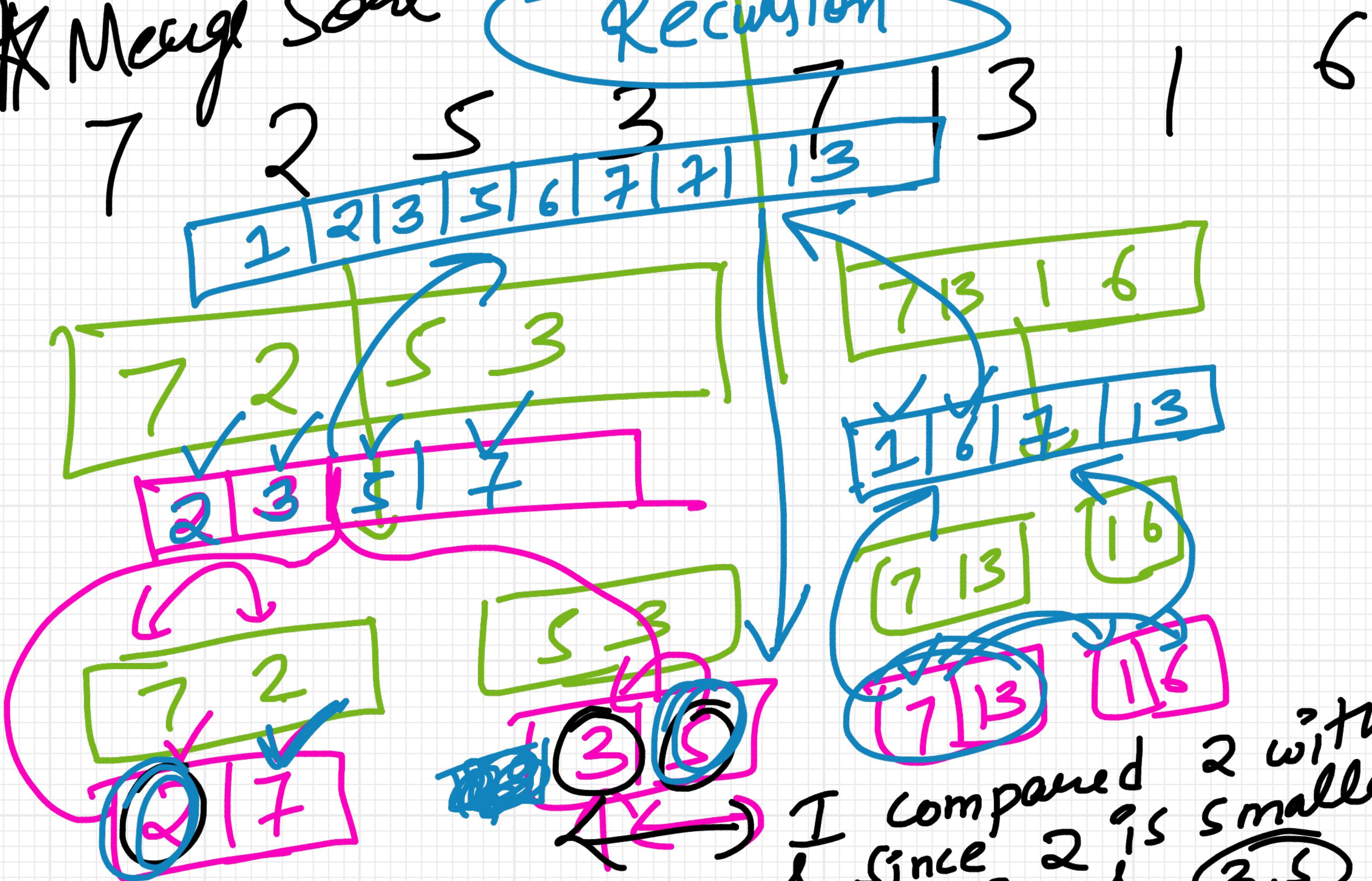
Neigh  
of B

In [21]: g2.DFS()

B  
F  
A  
Y  
E  
Z  
M  
N  
D  
X  
C  
I

\* Meag Sent

# Recursion



I compared 2 with 3  
since 2 is smaller than 3  
sorted.