

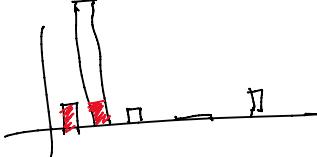
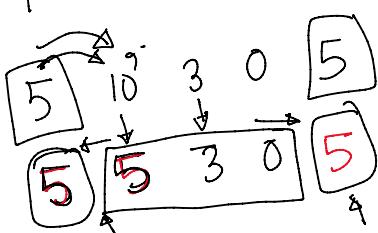
$$1 \quad 10^9 \quad 3 \quad 3 \quad 5$$

1 1 3 3 5

2

$$\text{odd} \rightarrow a_R = a_L$$

$$\text{even} \rightarrow a_L = a_R$$



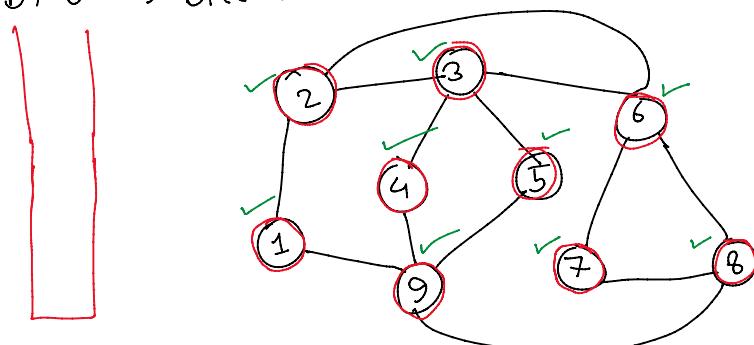
$$\begin{array}{r}
 \boxed{5} & 10^9 & 3 & 0 & 5 \\
 \downarrow & \downarrow & \curvearrowright & & \\
 5 & 5 & 5 & 0 & 5
 \end{array}$$

0 N-1

DFS / BFS → Traversal algorithm

DFS → Depth First Search

BFS  $\rightarrow$  Breadth " "



19

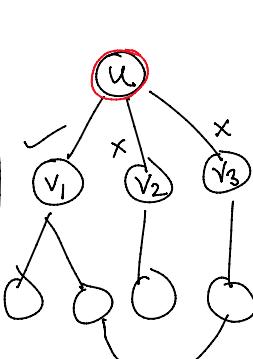
dfs(u) :

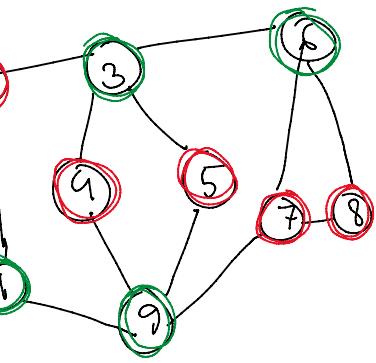
$$\text{vis}[u] = 1$$

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if (!vis[v1]) dfs(v1)
if (!vis[v2]) dfs(v2)
if (!vis[v3]) dfs(v3)

```



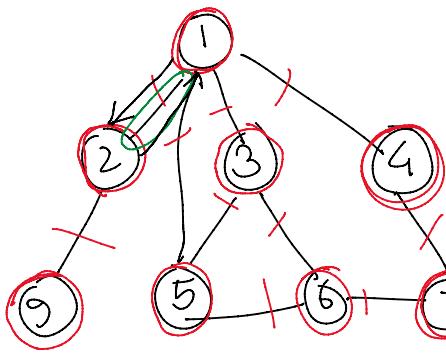


$\boxed{7} = \text{RED}$   
 $\boxed{7} \rightarrow \begin{matrix} \checkmark \\ \times \end{matrix} 6, 8$

आजाना एका एका व्हेक्टर लाई लावा, तो तो तो तो तो

यादव node ए रेस्टेना असता, आम्हा अंगठुला node ए प्रेषाणा

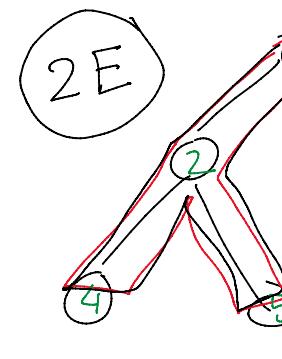
करून?  $\Rightarrow$   $\text{dfs}(u)$  complete रिठा



```

 $\text{dfs}(u):$ 
L1  $\rightarrow \text{vis}[u] = 1$ 
L2  $\rightarrow \text{for}(\text{auto } v: \text{gr}[u])$ 
L3  $\rightarrow \text{if}(\text{!vis}[v])$ 
L4  $\rightarrow \text{dfs}(v)$ 

```

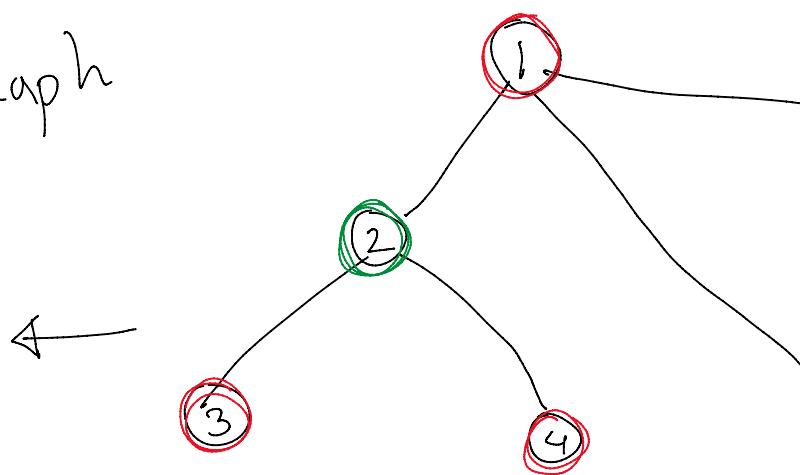
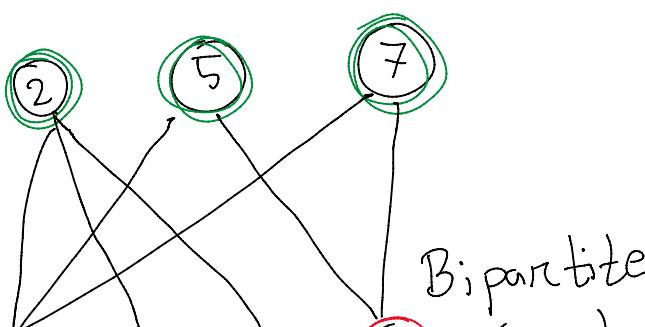
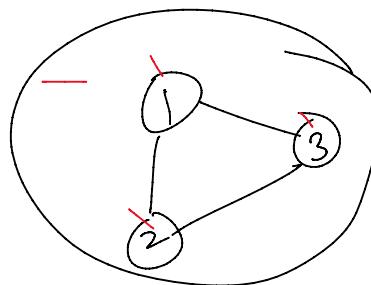


$\text{dfs}(1);$



Application of DFS:

- \* Traversal
- \* Component count
- \* Bicolorable graph



7]  $\rightarrow 6, 8$

