

CS2 101 1-27-26

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• Pa3 ext. 1-day

## Pa3 Questions

14 FindComponents.c

$n = \text{getOrder}(G)$

$(1, 2, 3, \dots, n)$

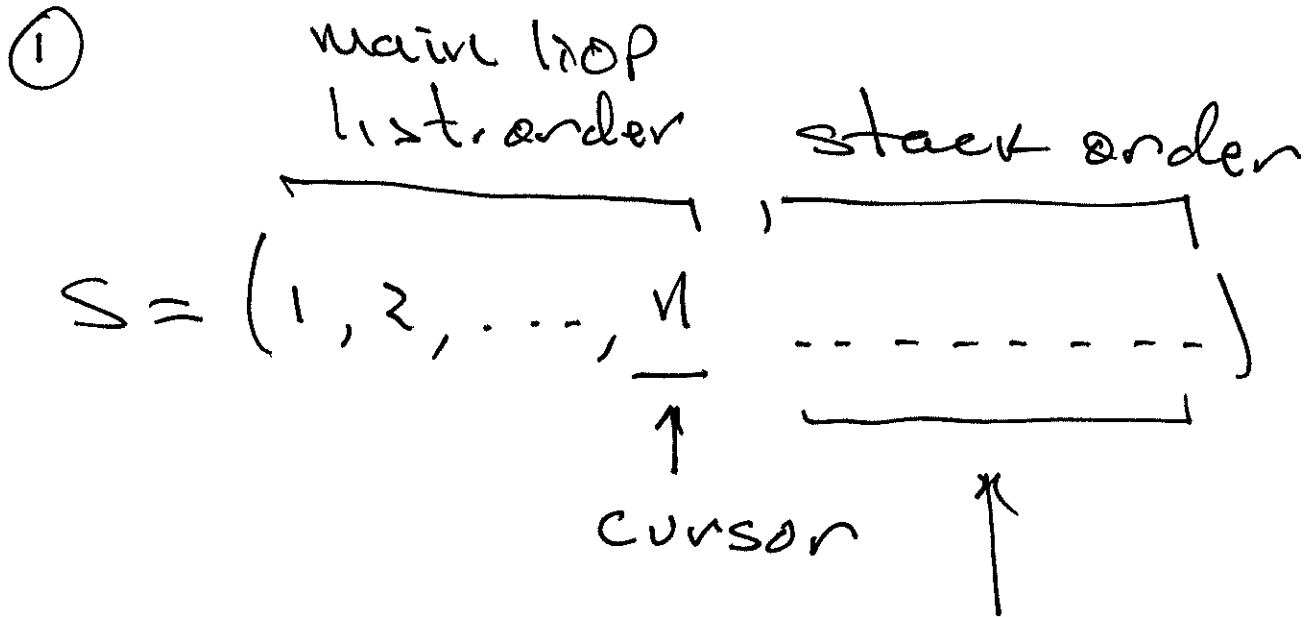
$\text{DFS}(G, S)$

$S = (\dots \text{stack from 1}^{\text{st}} \text{ call} \dots)$

$\text{DFS}(G^T, S)$

$S = (\dots \text{stack from 2}^{\text{nd}} \text{ call} \dots)$

# using S to do 2 things



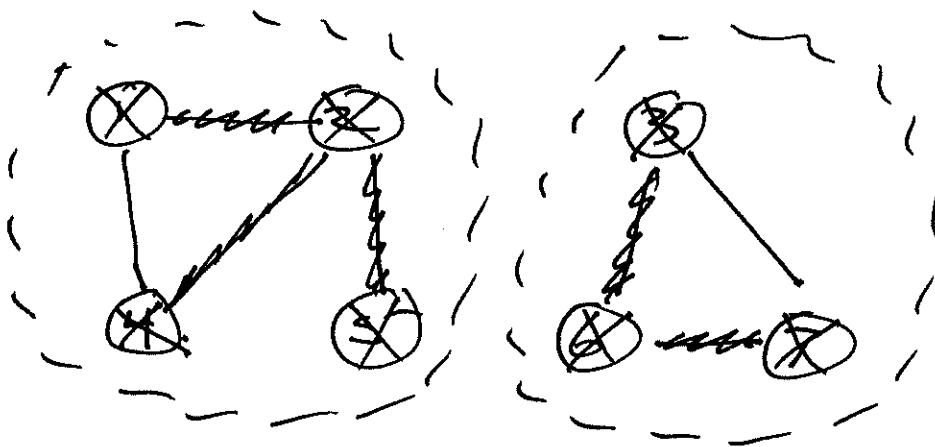
## ② "easy way"

List L = Listcopy(S);

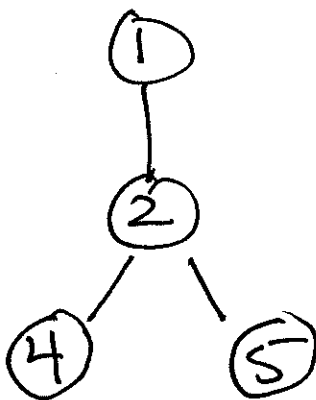
- L controls main loop
- Clear S, Pass it to visit
- Push (Prepend) as vertices finish
- free copy

# DFS on undirected graph

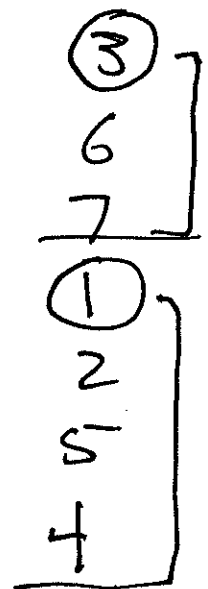
Ex. undirected



Forest



stack



# Handout : Algorithm Runtime

