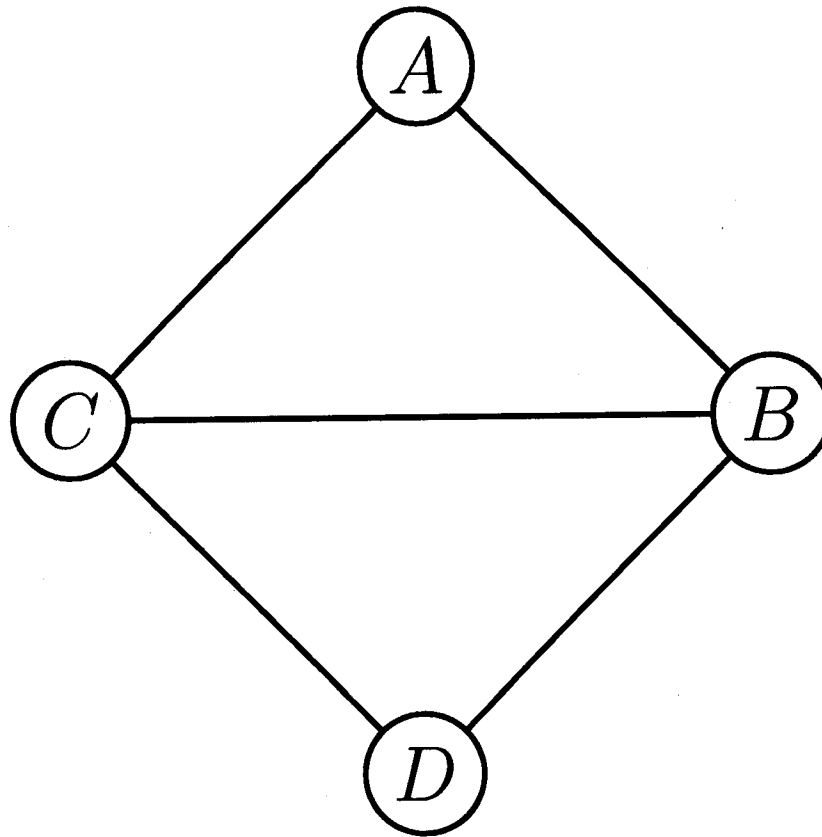


Graphs



Two nodes are neighbors if there is an edge connecting them.

E.g. A & D are not neighbors,
while B & C are neighbors.

BFS: Breadth-first search

- Step 0. Give node A the index 1.
- Step 1. Let $\{1, 2, \dots, k\}$ be the set of indexed nodes, and let x be a neighbor of the smallest indexed node.
- Step 2. Label node x with $k + 1$. Return to Step 1.

DFS: Depth-first search

- Step 0.
- Step 1.
- Step 2.

For both BFS and DFS, in the case of a tie, break the tie alphabetically, choosing the node with the earliest letter in the alphabet.

Homework

