CS367 Announcements
Wed, July 31st, 2013

- P3 due Wed July, 31st 11:59pm
- H7 due Mon Aug, 5th 6:00pm

Last Time

- Hashing (cont.)

Today

- Graphs

Data Structures

Linear

Hierarchical

Graphical

Graph Terminology

- Directed vs. Undirected
- adjacent (neighbors)
- predecessor $\rightarrow$ successor
- source $\rightarrow$ target
- self-edge
- path
- cyclic vs. acyclic (paths and graphs)
- Directed Acyclic Graph **(DAG)**
- complete
- connected
  - weakly connected
  - strongly connected
- weighted edges, graphs

Searches and Traversals

Search

Traversal

Depth-First Search (DFS)

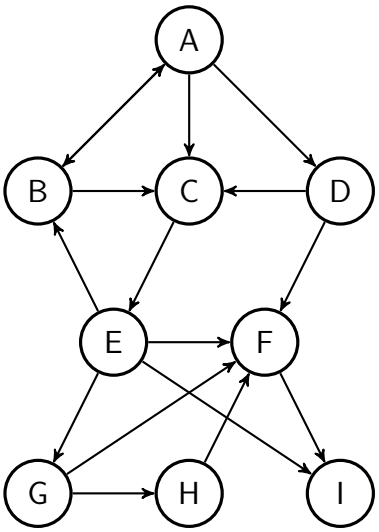
Questions it is used to answer:

Recursive definition:

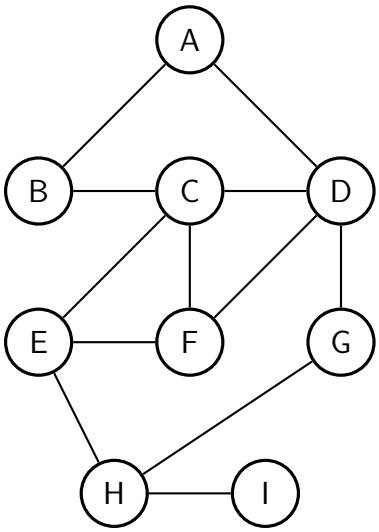
As a Stack:

Examples:

Graph 1



Graph 2



Give the order that nodes are visited in depth-first search (DFS) starting at A

Graph 1:

Graph 2:

Give the DFS spanning tree starting at A

Graph 1: **Graph 2:**