Directed graphs

- Graphs can be directed or undirected - so far, have seen undirected graphs
- DIrected graphs have a slightly different mathematical definition:
  - Undirected: $E = \{\{v_1, v_2\} : v_1, v_2 \in V\}$
  - Directed: $E = \{(v_1, v_2) : v_1, v_2 \in V\}$
- Takeaway: order matters for edges in a directed graph, but not in an undirected one
- Indicate edge direction with arrows; (v_1, v_2) gets an arrow from v_1 to v_2.

Directed acyclic graphs (DAGs)

- No cycles: not possible to leave some node and return to it using the edges in the graph in the correct direction