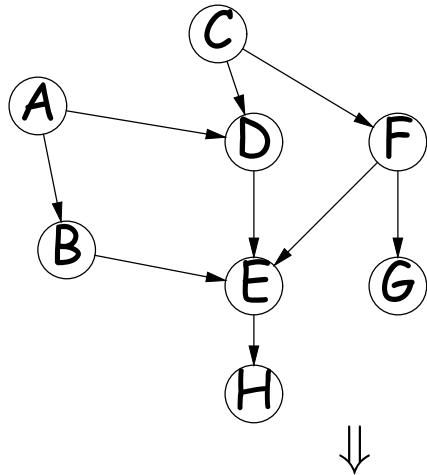


Topological Sorting

Problem: Given a DAG, find a linear order of nodes consistent with the edges.

- That is, order the nodes v_0, v_1, \dots such that v_k is never reachable from $v_{k'}$ if $k' > k$.
- Gmake does this. Also PERT charts.



[A, B, C, F, D, G, E, H], or
[A, C, B, D, F, E, G, H], or
[A, B, C, F, D, E, H, G], or
⋮

```
Set<Vertex> fringe;  
fringe = set of all nodes with no predecessors;  
while (! fringe.isEmpty()) {  
    Vertex v = fringe.removeOne ();  
    add v to end of result list;  
    For each edge (v,w) {  
        decrease predecessor count of w;  
        if (predecessor count of w == 0)  
            fringe.add (w);  
    }  
}
```

Topological Sort in Action

