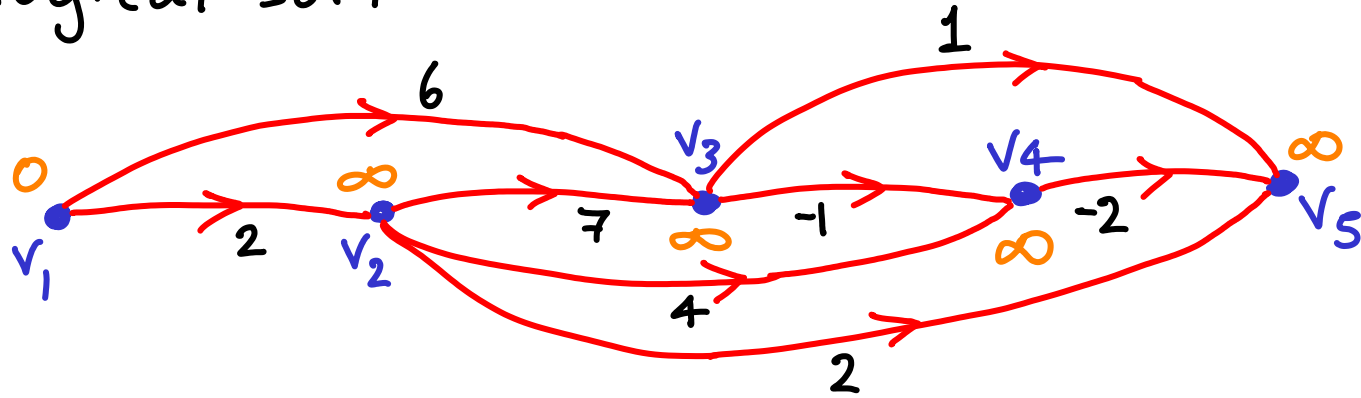


SINGLE-SOURCE SHORTEST PATHS FOR A DAG

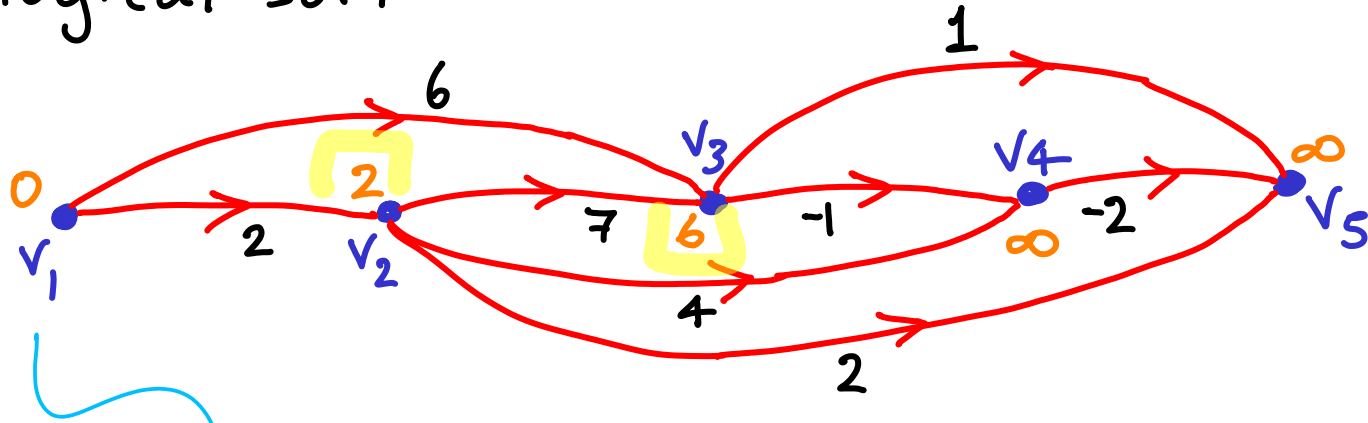
1) Topological sort



2) For each v_i in t-sorted order
RELAX all outgoing edges

SINGLE-SOURCE SHORTEST PATHS FOR A DAG

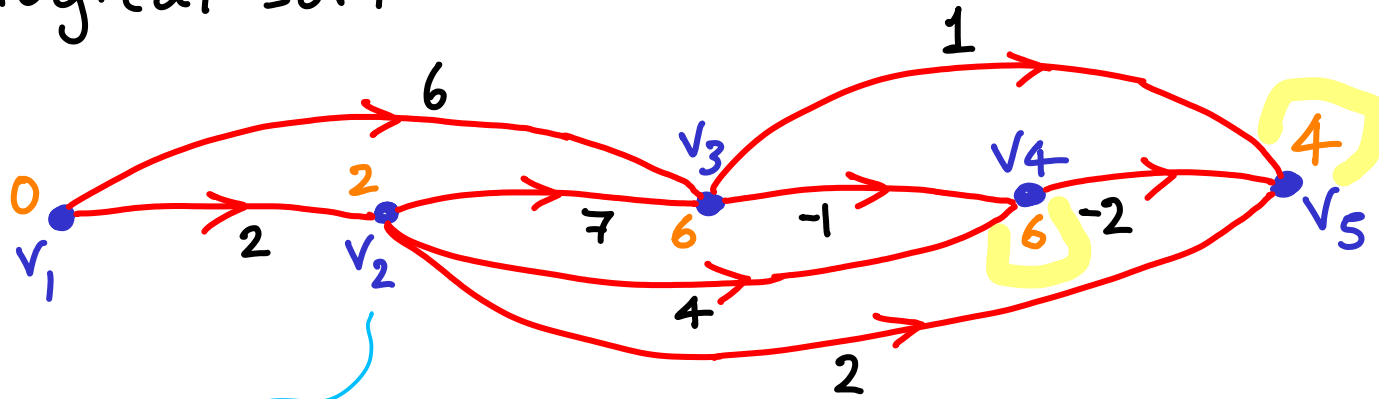
1) Topological sort



2) For each v_i in t-sorted order
RELAX all outgoing edges

SINGLE-SOURCE SHORTEST PATHS FOR A DAG

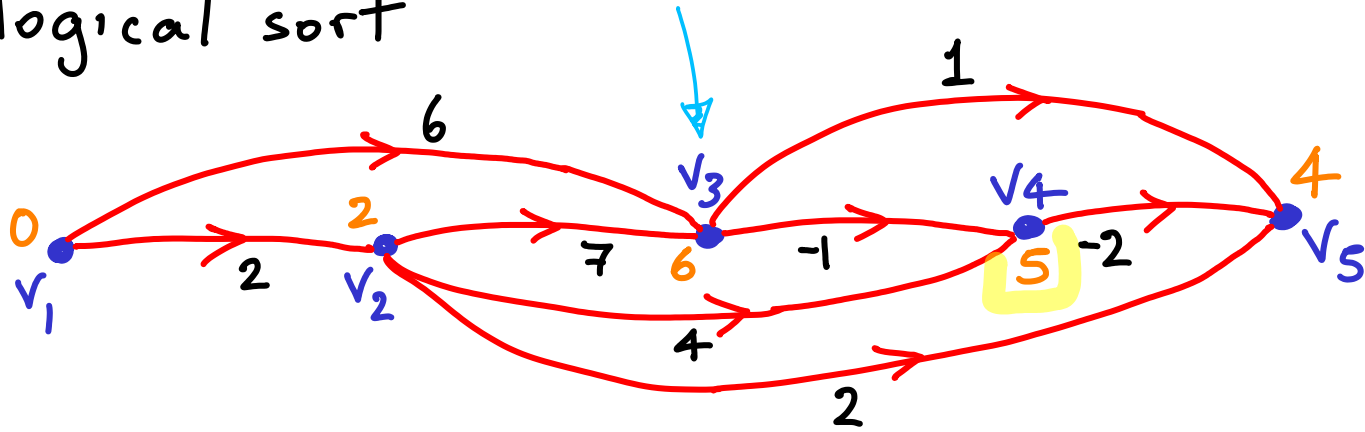
1) Topological sort



2) For each v_i in t-sorted order
RELAX all outgoing edges

SINGLE-SOURCE SHORTEST PATHS FOR A DAG

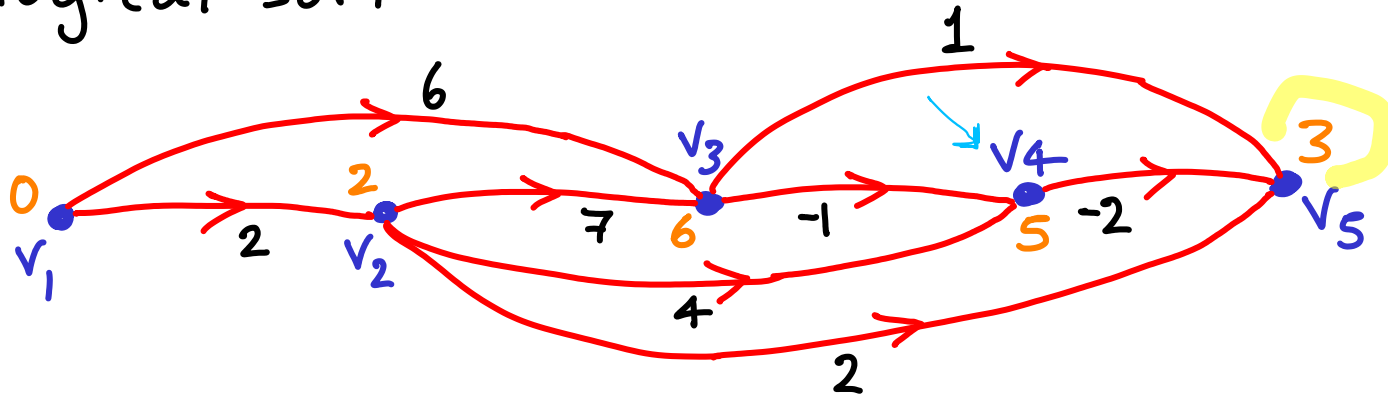
1) Topological sort



2) For each v_i in t-sorted order
RELAX all outgoing edges

SINGLE-SOURCE SHORTEST PATHS FOR A DAG

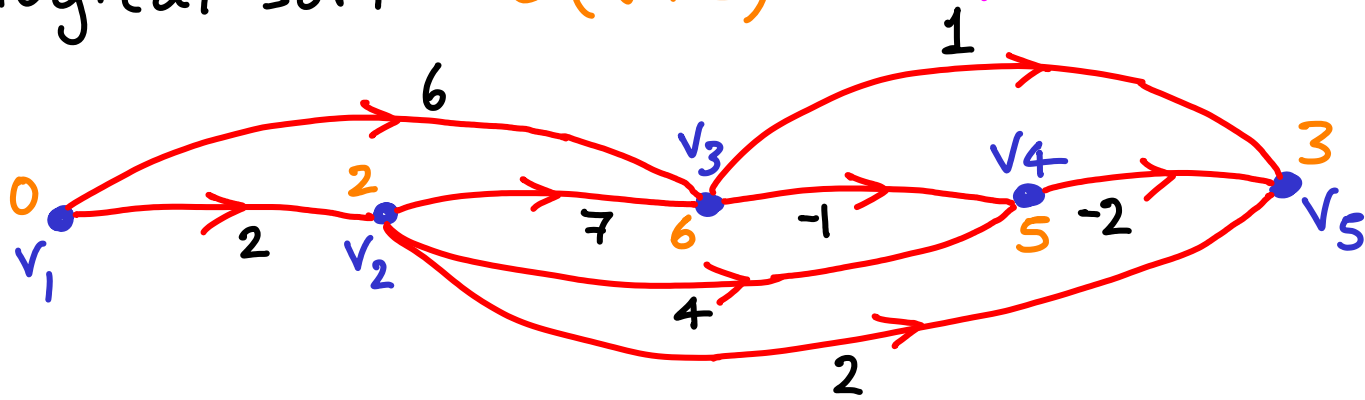
1) Topological sort



2) For each v_i in t-sorted order
RELAX all outgoing edges

SINGLE-SOURCE SHORTEST PATHS FOR A DAG

1) Topological sort $O(V+E) \xrightarrow{*} O(E)$



2) For each v_i in t-sorted order
RELAX all outgoing edges

$$O(V+E) \xrightarrow{*} O(E)$$

* for subgraph reachable by s
(start DFS at s)