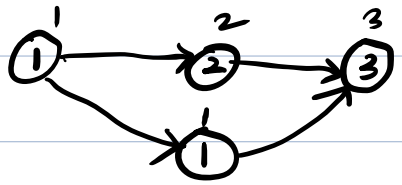
24.2-3

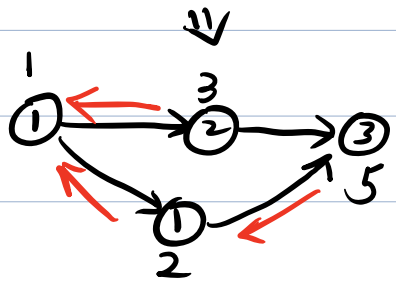
修改DAG-SHORTEST-PATHS(G,w,s). 主要修改 INITIALIZE 和 RELAX

topologically sort the vertices of G



INITIALIZE(G)

for each vertex u, taken in sorted order



  for each vertex v, $v \in G.Adj[u]$

    RELAX(u,v,w)

INITIALIZE(G)

  for each $v \in G.V$

    $v.d = v.w$

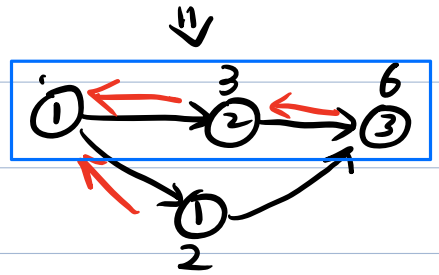
    $v.\pi = NIL$

RELAX(u,v)

  if $v.d < v.w + u.d$

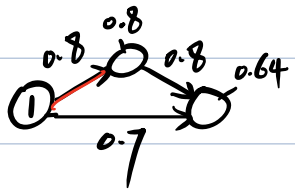
    $v.d = v.w + u.d$

    $v.\pi = u$



24.3-6

Find the most reliable path between two given vertices. s = start点, e = end点



SOLUTION(G,r,s,e)

  INITIALIZE(G,s)

  $S = \Phi$, $Q = G.V$

  while $Q \neq \Phi$

    $u = EXTRACT\text{-}MAX(Q)$

    $S = S \cup \{u\}$

    for each vertex $v \in G.Adj[u]$

      RELAX(u,v,w)

RELAX(u,v,r)

  if $v.d < u.d * r(u,v)$

    $v.d = u.d * r(u,v)$

    $v.\pi = u$

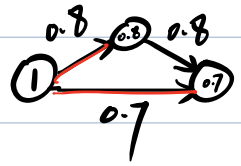
INITIALIZE(G,s)

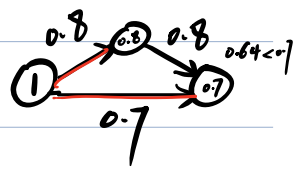
  foreach $v \in G.V$

    $v.d = 0$

    $v.\pi = NIL$

  $s.d = 1$





输出路径

```
while e≠s
    print e
    e = e.π
print s
```