

8.

- a. First run reverse topological sort so that you can begin with the largest value
- b. Run the following algorithm similar to the one presented in class with the coin problem

$P[v]$ is the max number of stones what can be on a path starting at v

$N[u]$ is the number of stones on a particular spot

for i in reverse $[0 \dots n)$

$u \leftarrow \text{TopSort}[i]$

$m \leftarrow 0$

for each $v \in \text{Successor}(u)$ do

if $P[v] > m$ then $m \leftarrow \min(P[v], c(e))$, where e is the edge from v

to its successor

$P[u] \leftarrow N[u] + m$

- c. However, $c(e)$ must be considered. If $c(e)$ is less than $P[v]$ at a particular edge, then we must drop stones until we can cross the edge.