16.6.2
Maximum post numbering and the source of the meta-graph
Post numbering and the meta graph

**Claim**

Let \( v \) be the vertex with maximum post numbering in \( \text{DFS}(G) \). Then \( v \) is in a \( \text{SCC} \ S \), such that \( S \) is a source of \( G^{\text{SCC}} \).
Claim

Let $\nu$ be the vertex with maximum post numbering in $\text{DFS}(G^{\text{rev}})$. Then $\nu$ is in a $\text{SCC}$ $S$, such that $S$ is a sink of $G^{\text{SCC}}$.

Holds even after we delete the vertices of $S$ (i.e., the vertex with the maximum post numbering, is in a sink of the meta graph).
Reverse post numbering and the meta graph

Claim

Let $v$ be the vertex with maximum post numbering in $\text{DFS}(G^{\text{rev}})$. Then $v$ is in a SCC $S$, such that $S$ is a sink of $G^{\text{SCC}}$. 

Holds even after we delete the vertices of $S$ (i.e., the vertex with the maximum post numbering, is in a sink of the meta graph).
THE END

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(for now)