

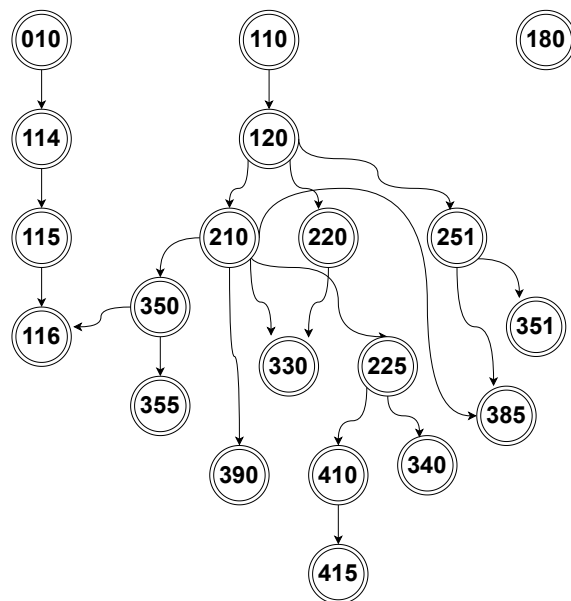
Source Removal Algorithm Practice

What is “dag” short for?

What is a source vertex in a dag?

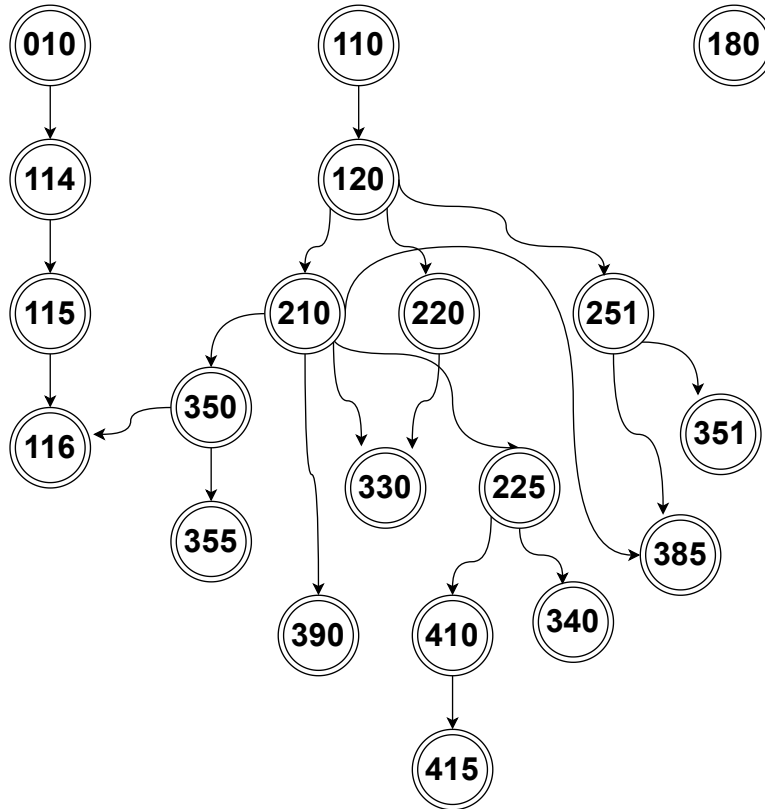
What is a sink vertex in a dag?

What are the possible first vertices in a topological ordering of the graph at the right? Why?



What are the possible last vertices in a topological ordering of the graph at the right? Why?

Find a possible topological ordering of the graph below using the source removal algorithm.



ALGORITHM SOURCEREMOVAL(G)

//Input: a dag $G = \{V, E\}$

$o \leftarrow$ a new empty list

while \exists a source vertex in G **do**

$v \leftarrow$ a source vertex from G

$o.append(v)$

$G.remove(v)$ // also removes all incident edges

if G is empty **then**

return o

else

flag error // G was not a dag