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(i) Graph directed হতে।

(ii) Graph এ কোন cycle থাকবে না।

$u \rightarrow v$

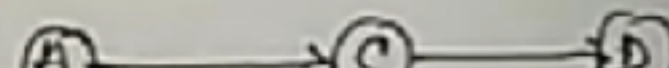
(iii) Topological sort of a directed graph is a linear ordering of its vertices such that every directed edge UV from vertex U to V , where U comes

Method:

(i) প্রতিটি vertex এর indegree (no of incoming edge) রকম বাক্য হতে।

(ii) vertices print করতে হবে, যেহেতু indegree = 0.

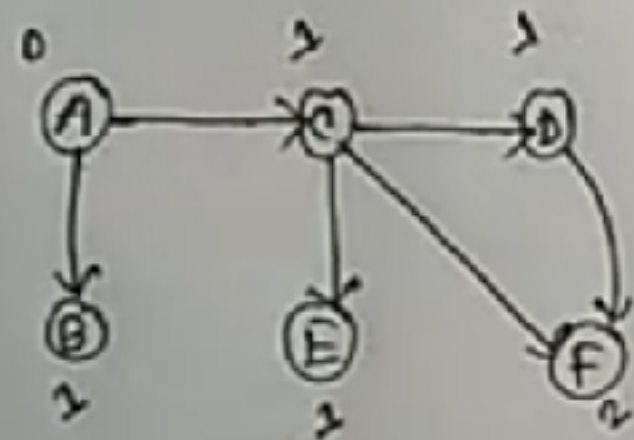
Print:



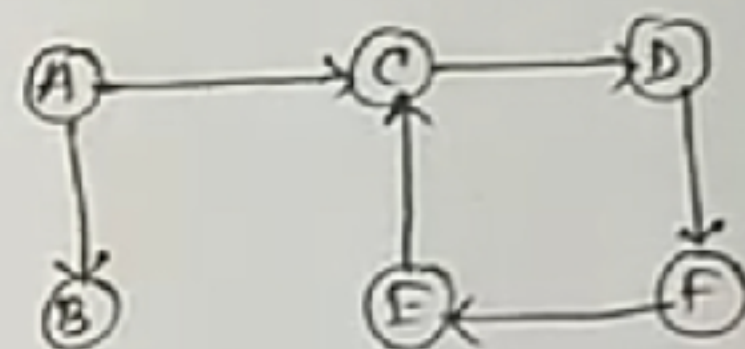
QUESTION:

- ① સર્વિસ વર્તિકલ નો indegree (no of incoming edge) દર્શાવવામાં આવે છે.
- ② જે વર્તિકલ પ્રિન્ટ કરવામાં આવે છે, તેનું $\text{indegree} = 0$.

Print:



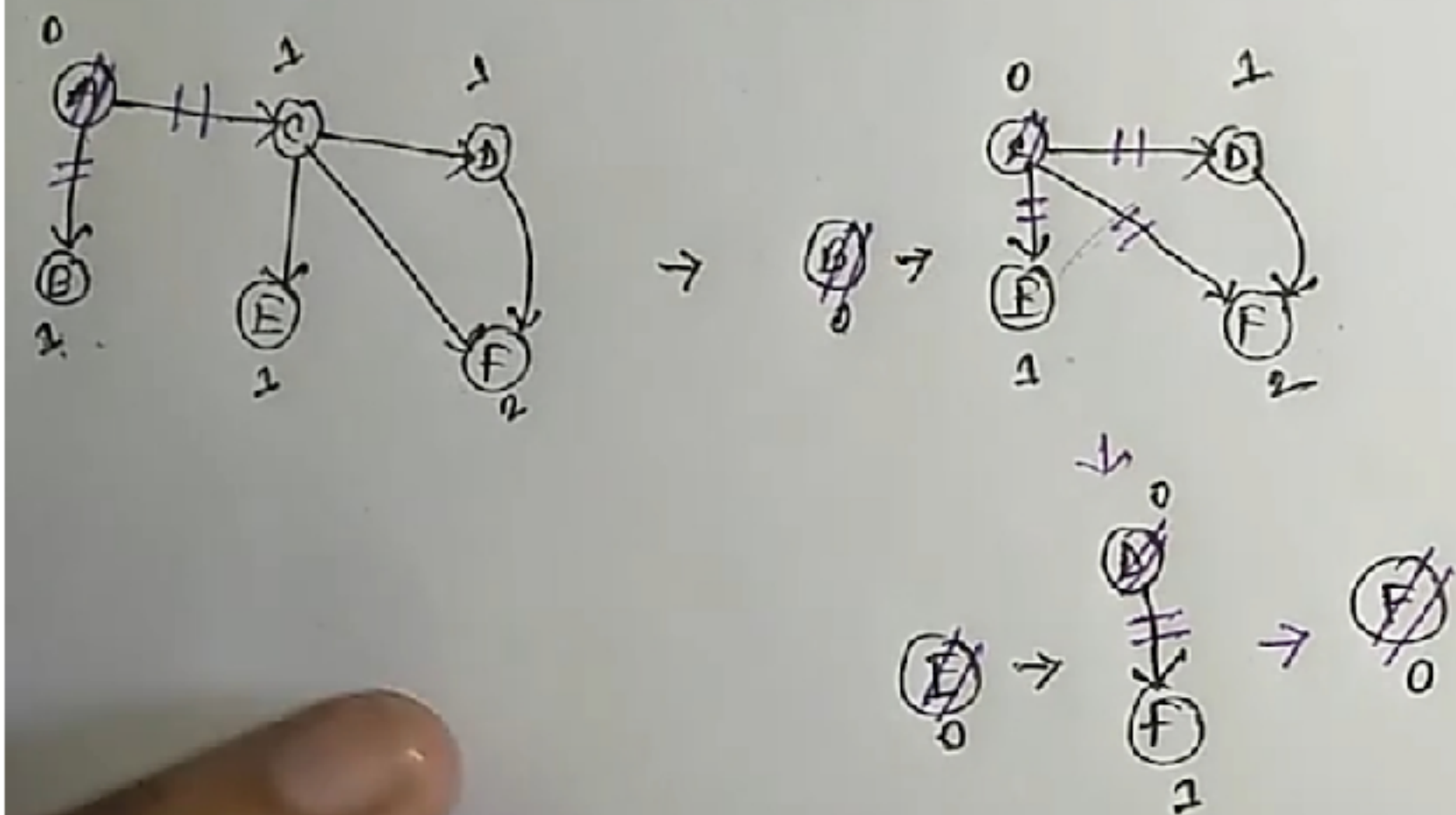
Print:



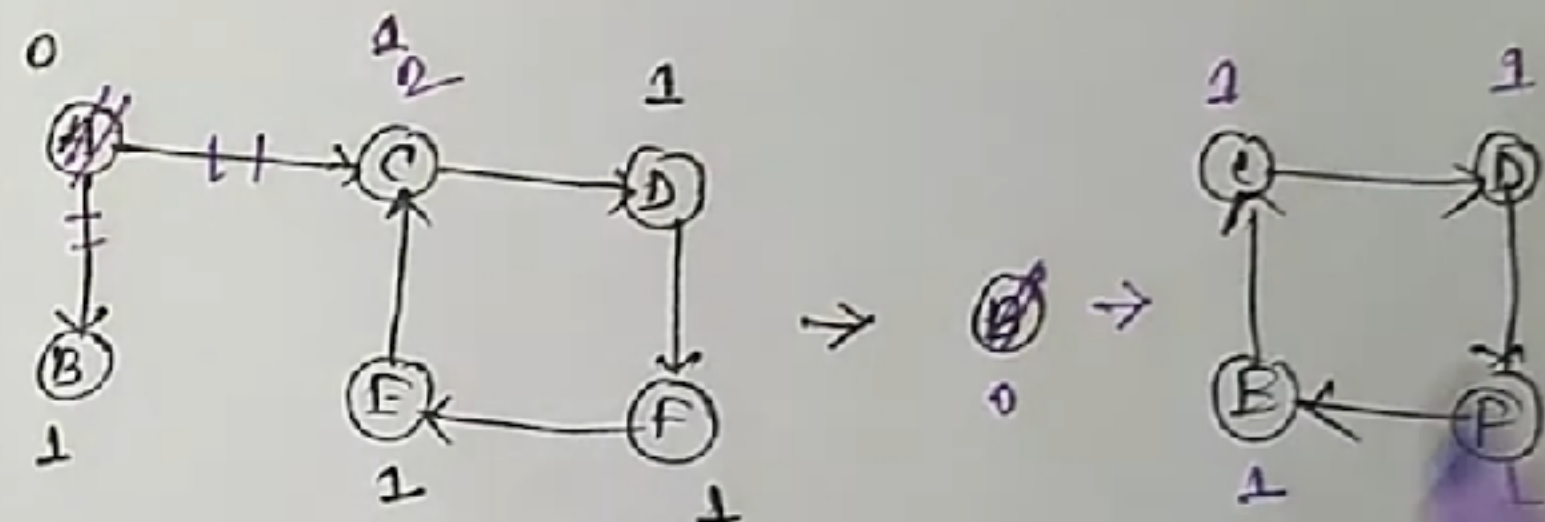
Method:

- (i) Sort vertices by indegree (no of incoming edge) decreasing order.
- (ii) 2 vertices print first two, where indegree = 0.

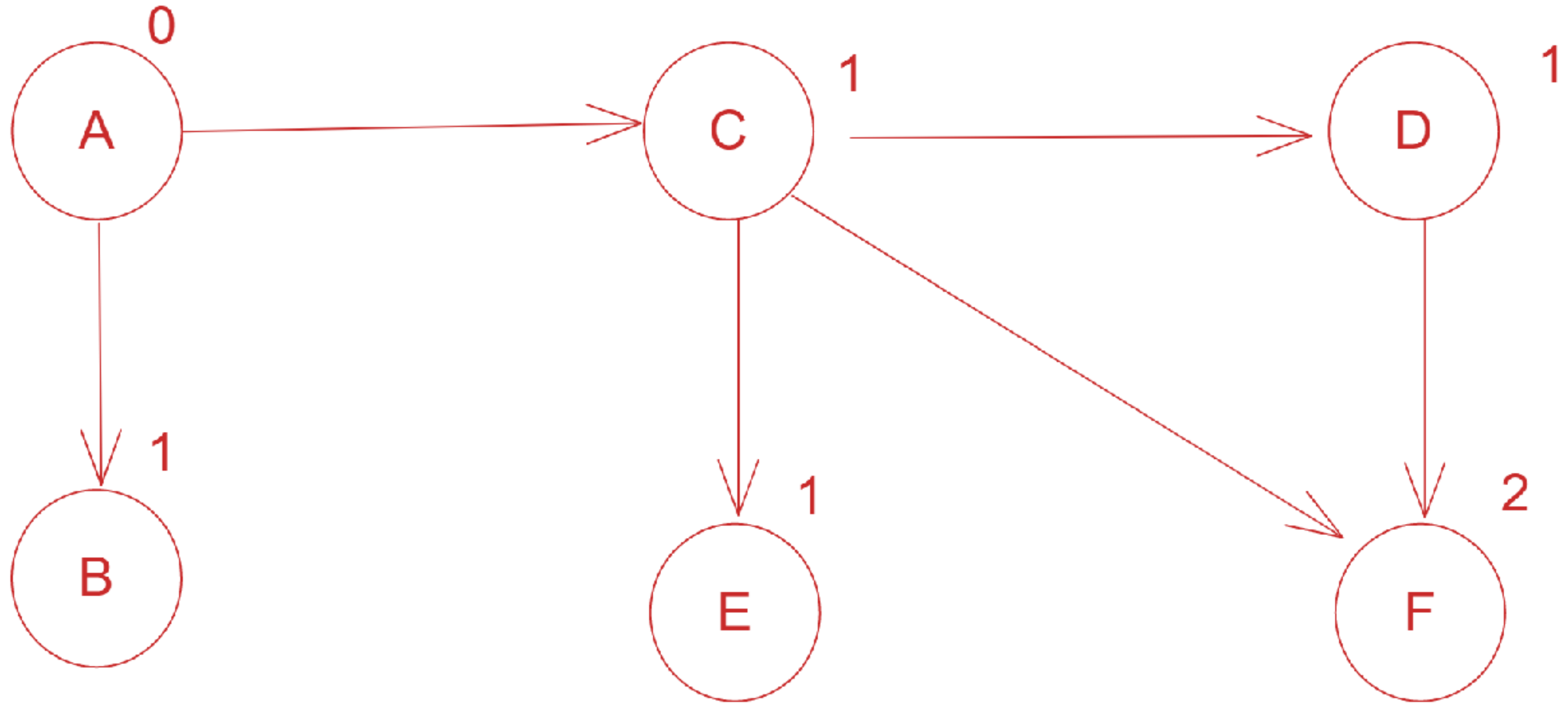
Print: A B C E D F



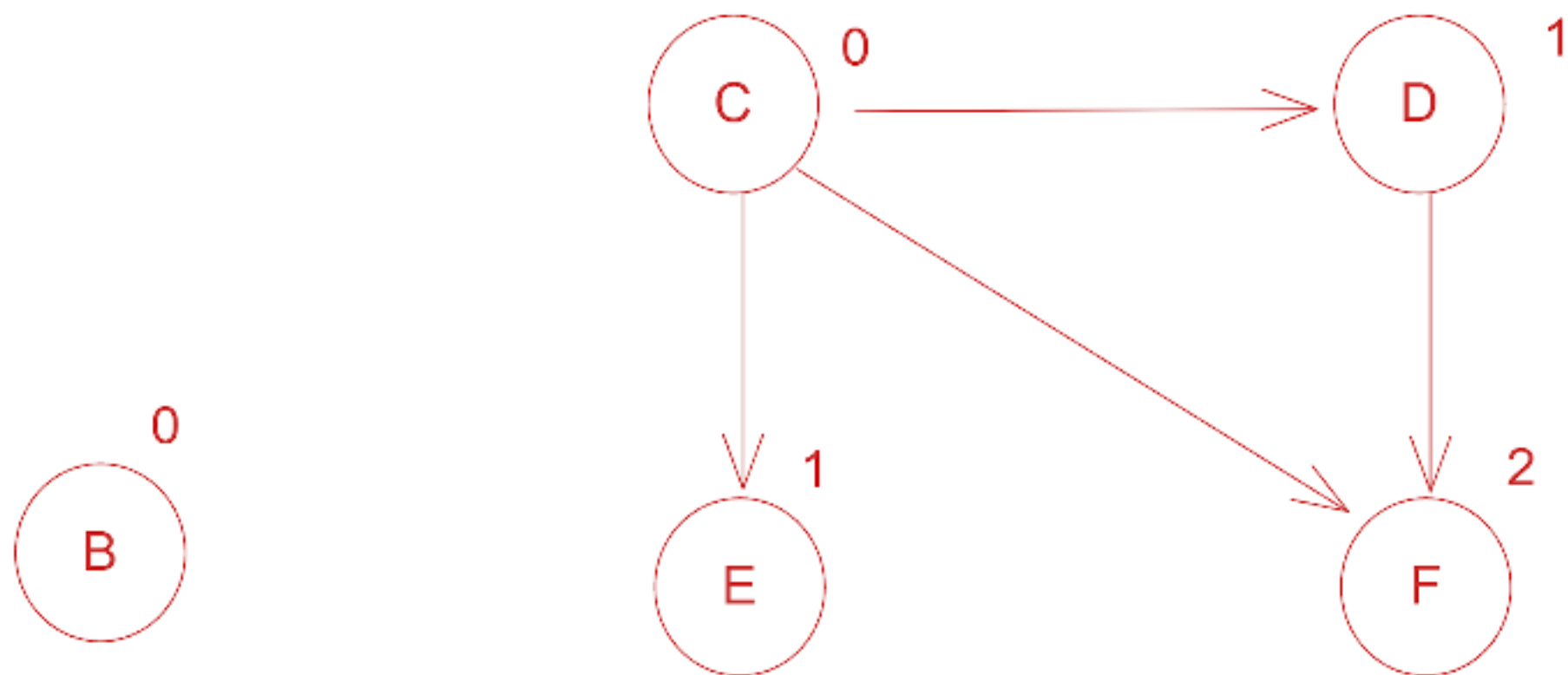
Print: A B



topological sort

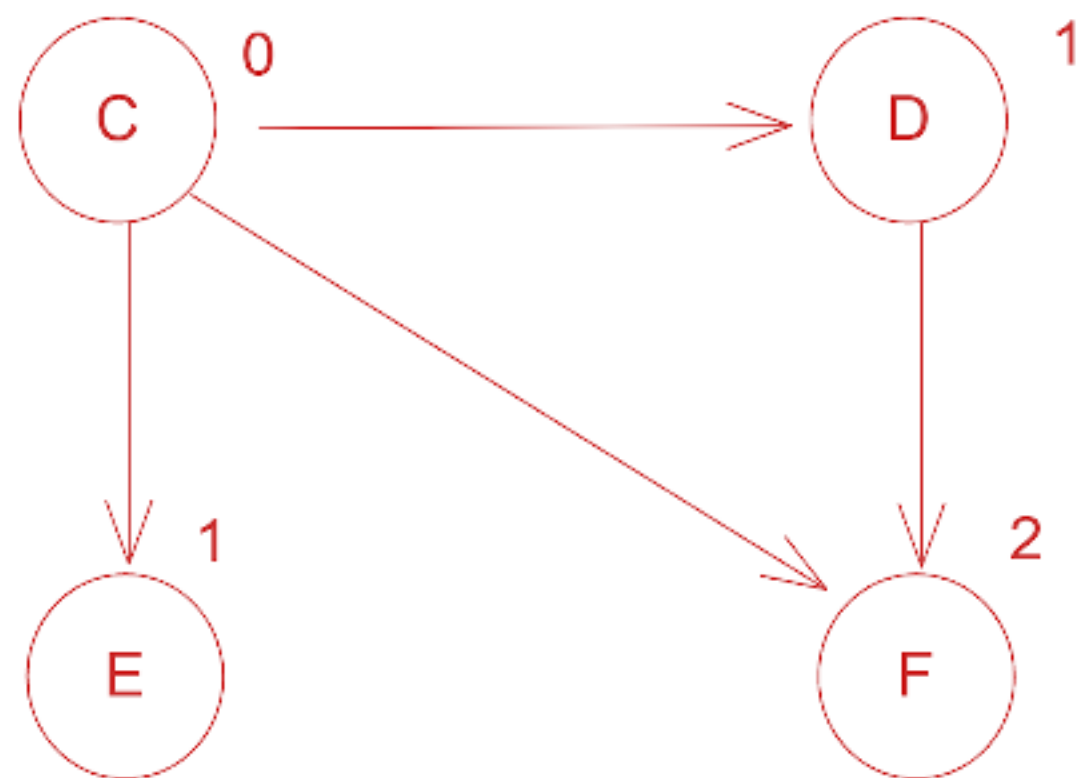


topological sort



topological sort

A	B		
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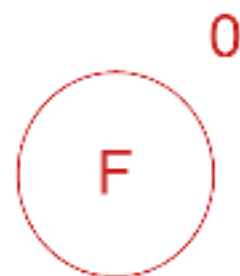
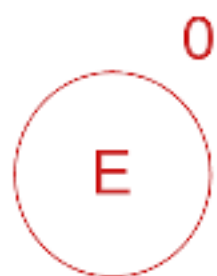


topological sort



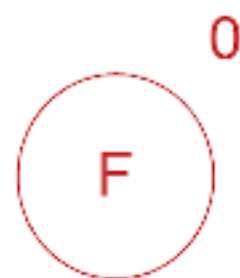
topological sort

A	B	C	D		
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topological sort

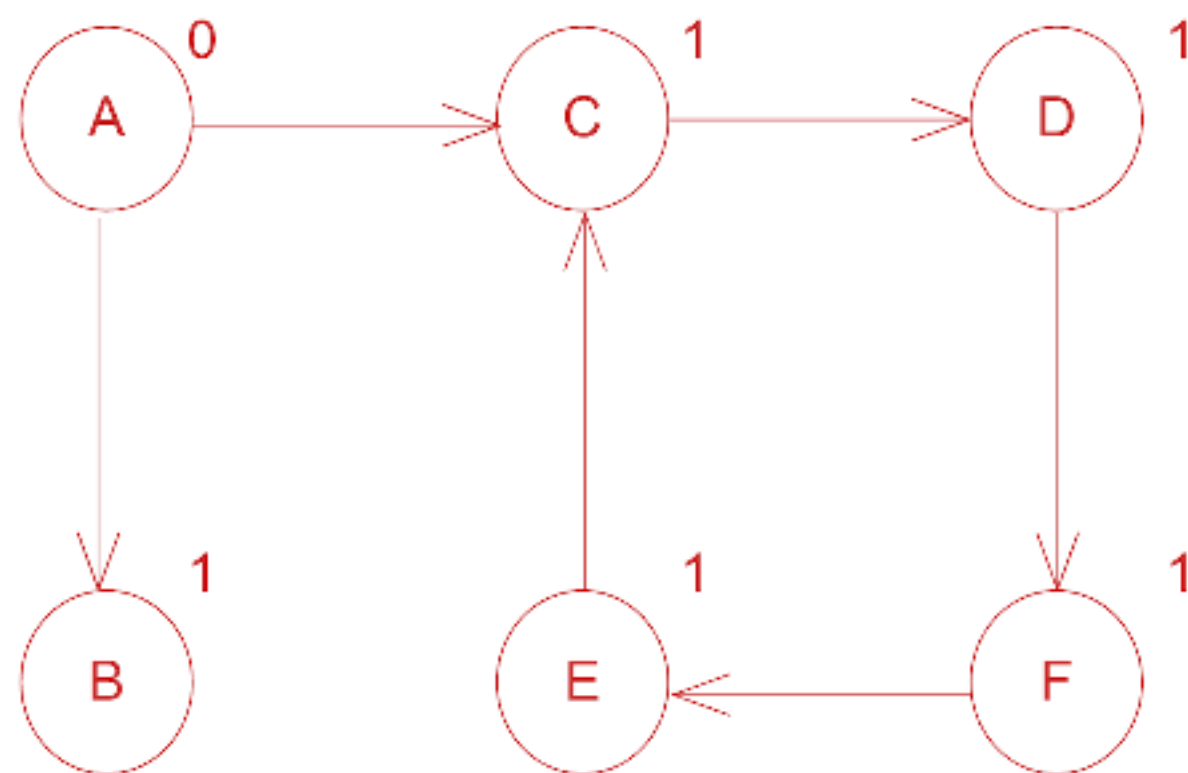
A	B	C	D	E	
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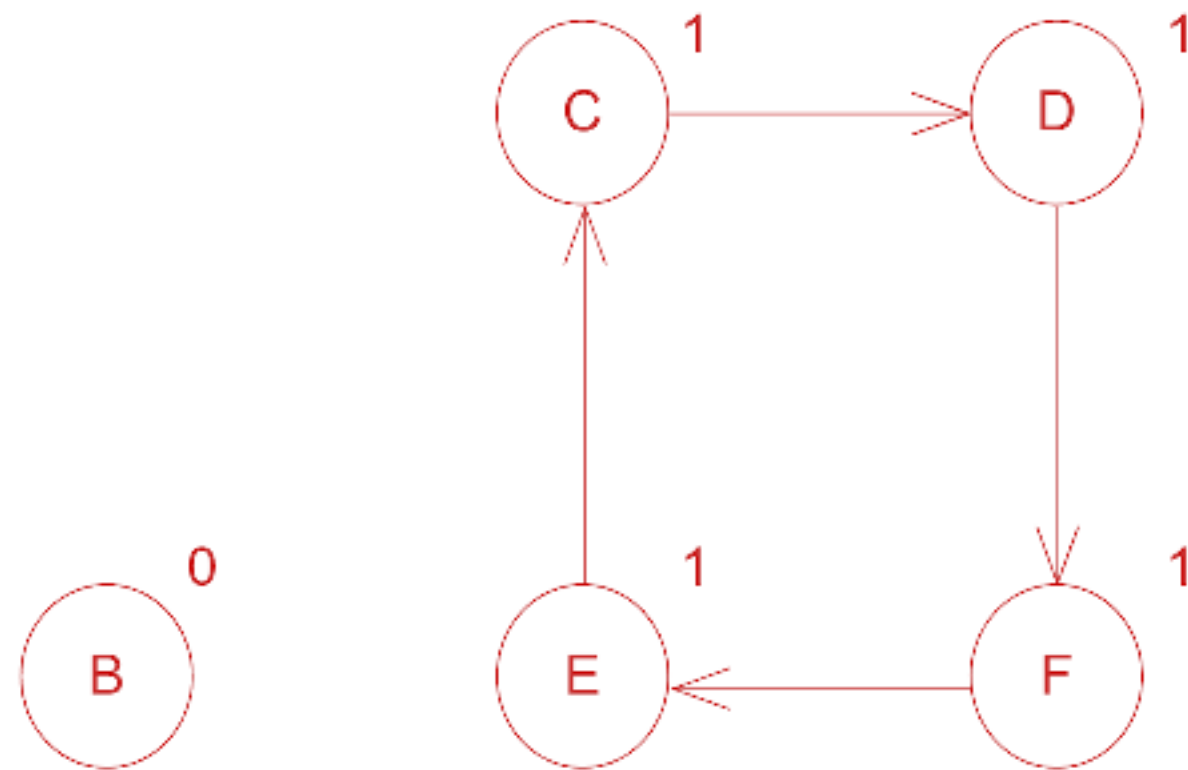
topological sort

A	B	C	D	E	F
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topological sort

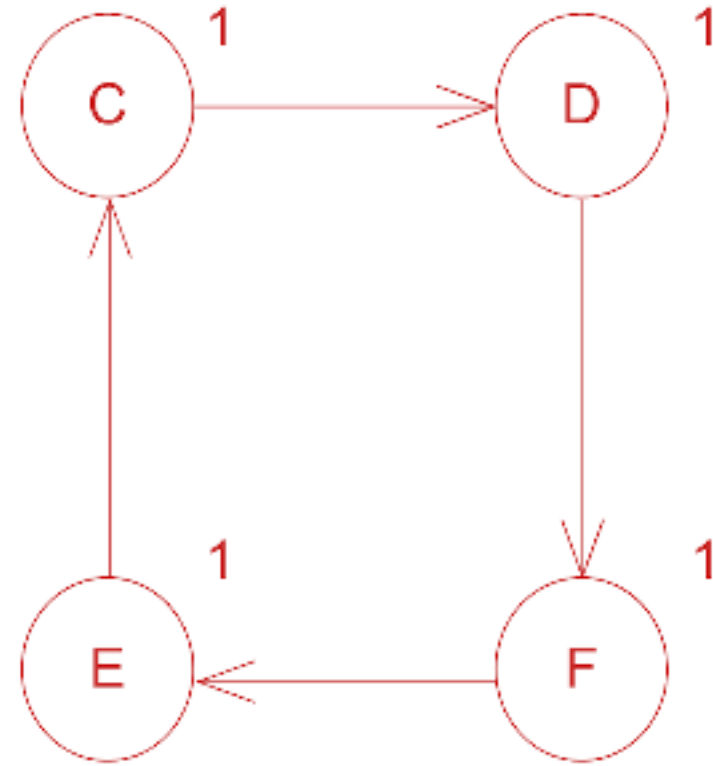


topological sort



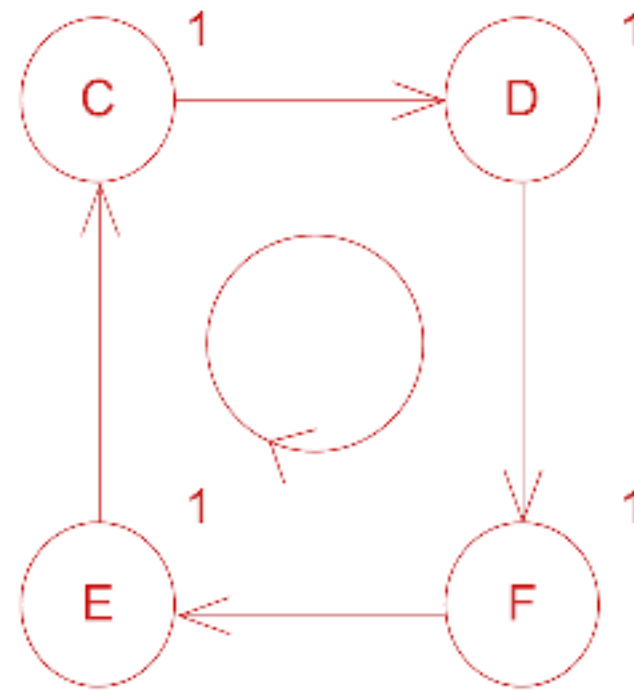
topological sort

A	B				
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topological sort

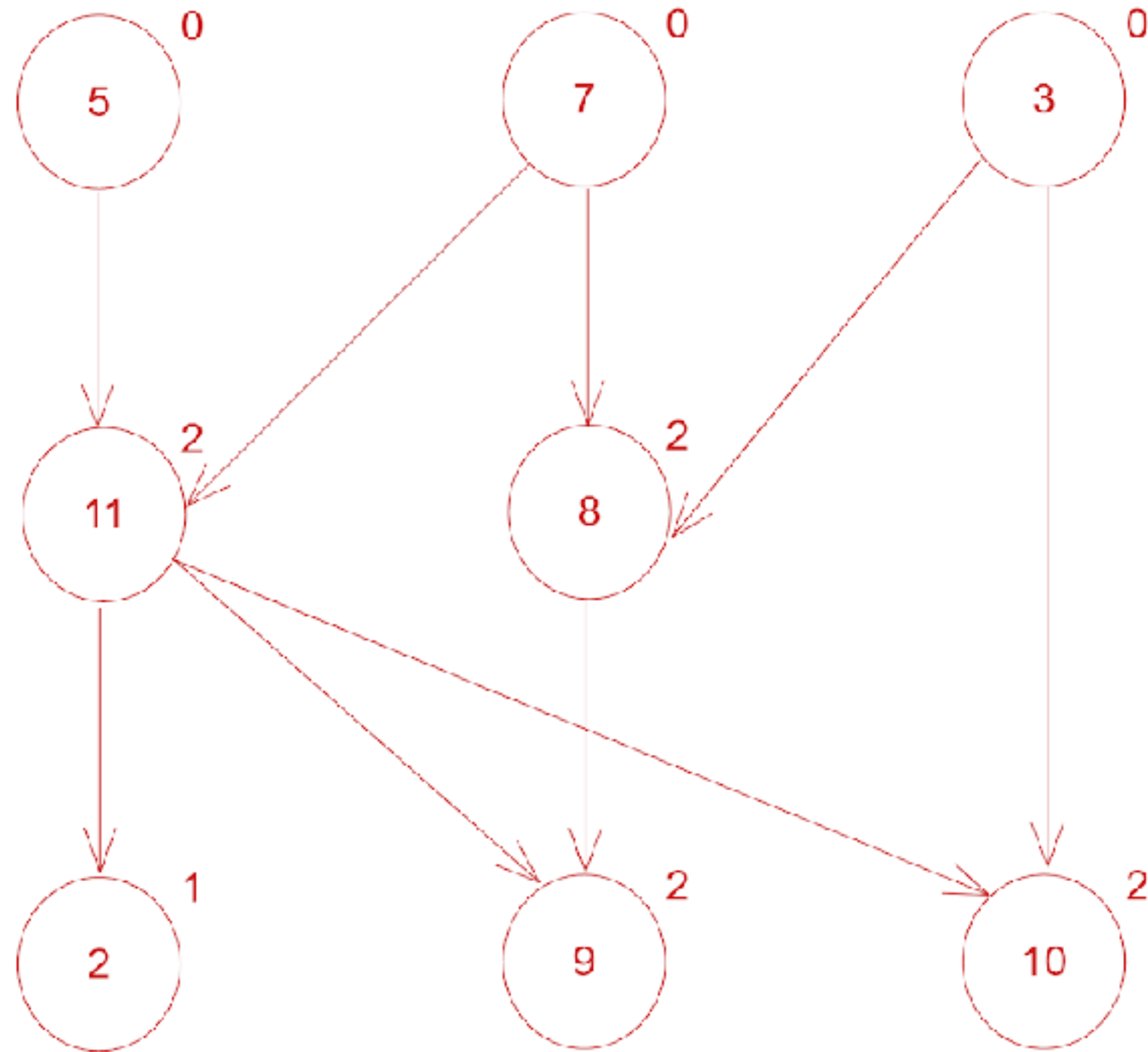
A	B				
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Cycle is not allowed in topological sort

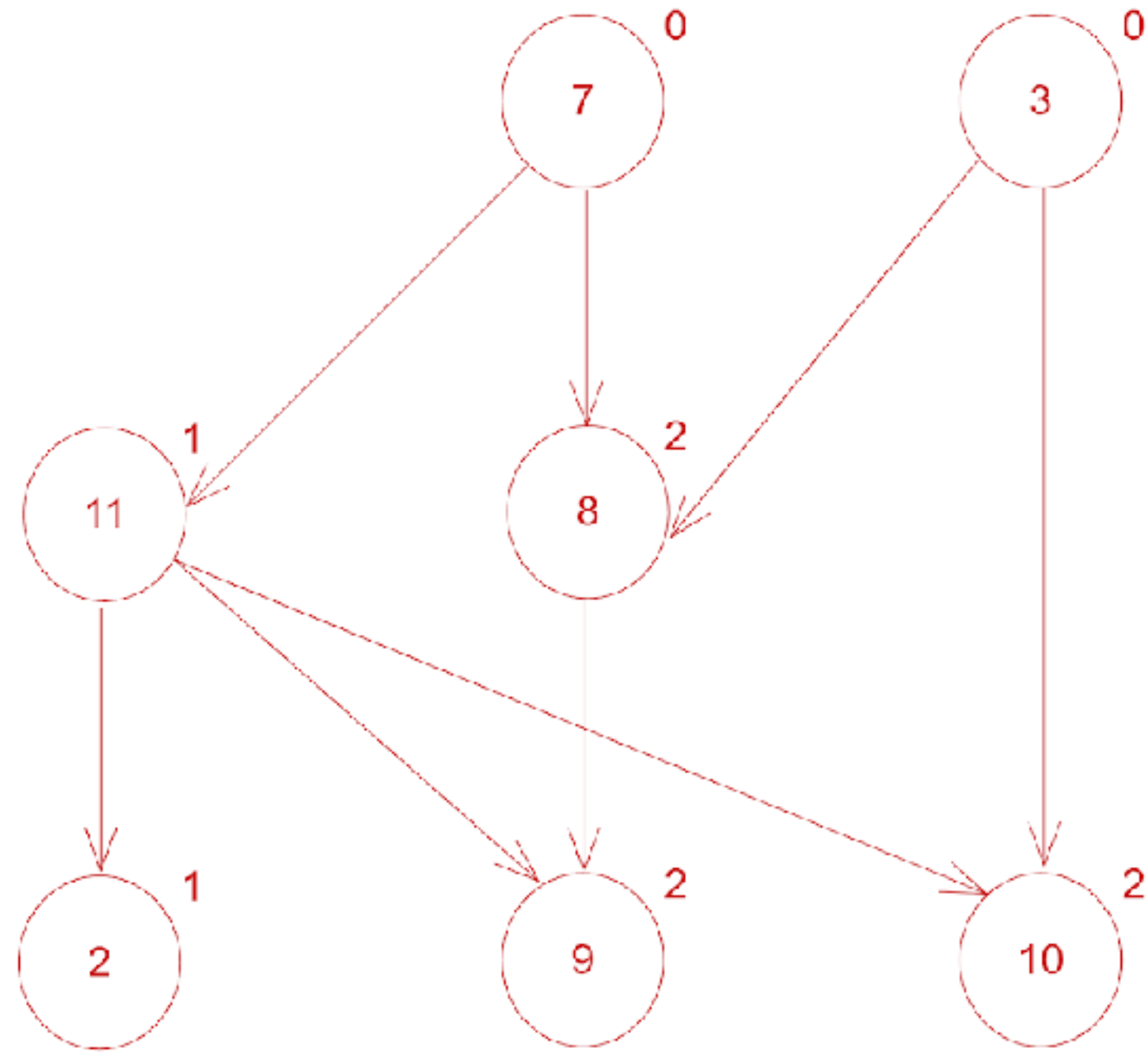
So there will be no Topological sort here

topological sort



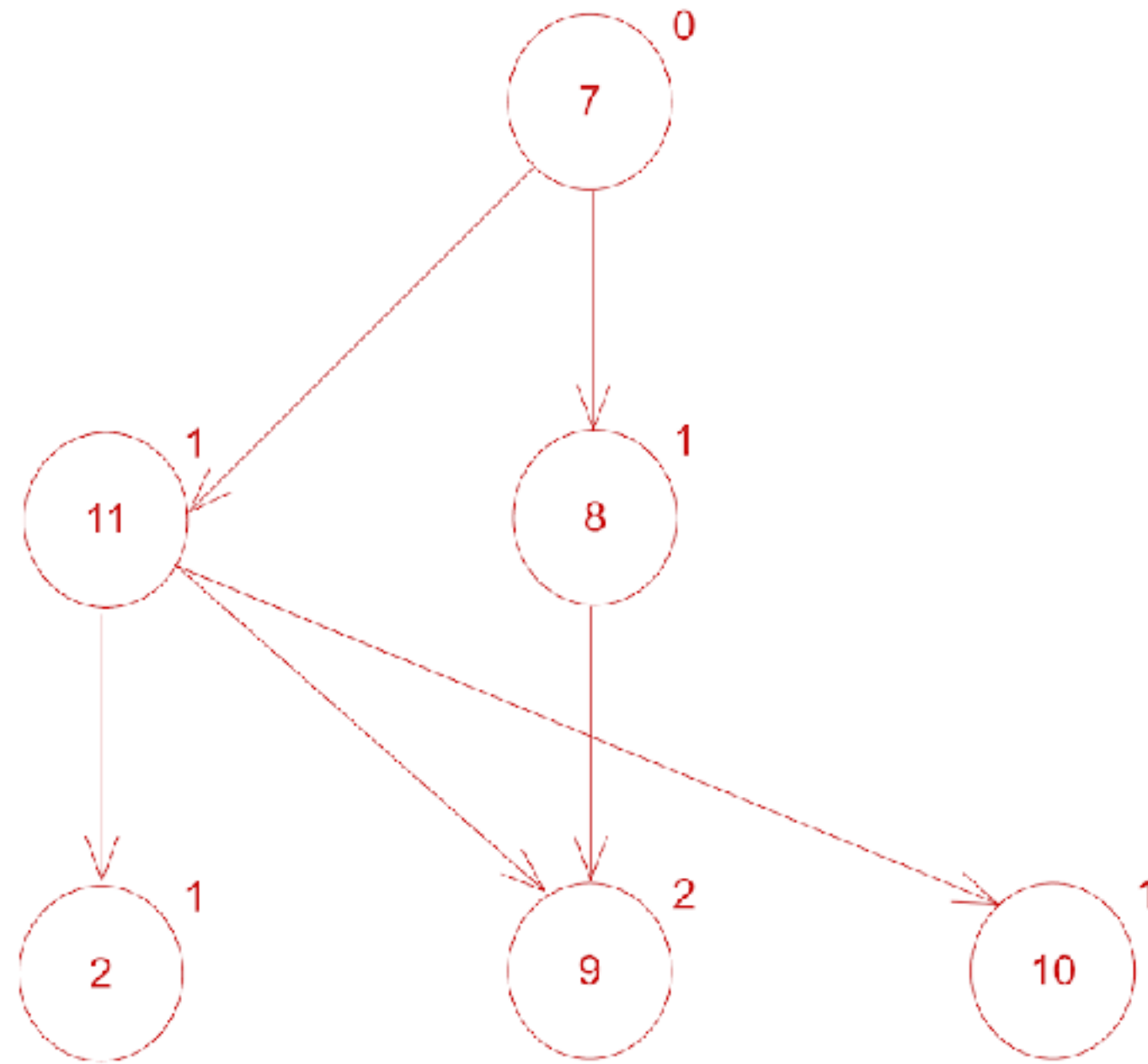
topological sort

5							
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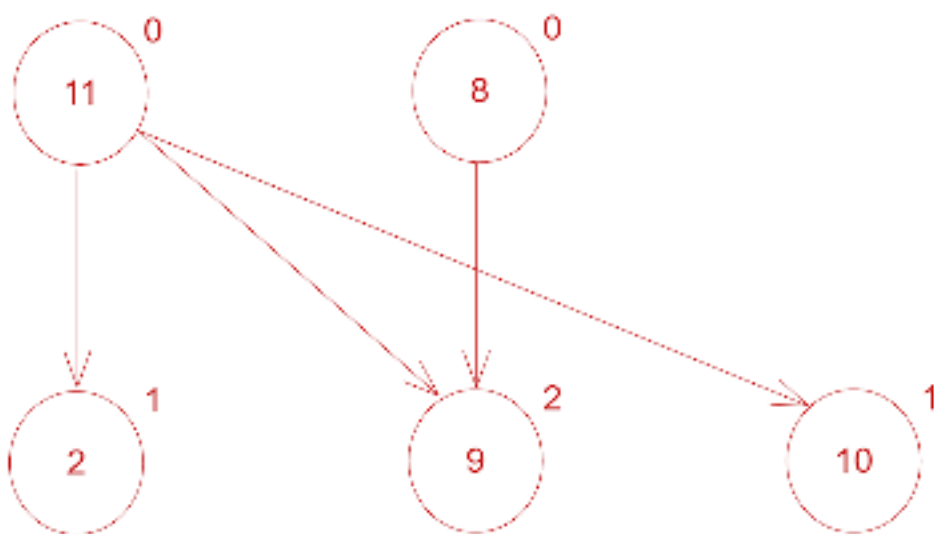
topological sort

5	3						
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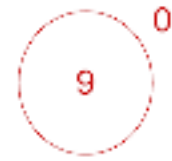
topological sort

5	3	7					
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topological sort

5	3	7	8	11			
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topological sort

5	3	7	8	11	2	9	10
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