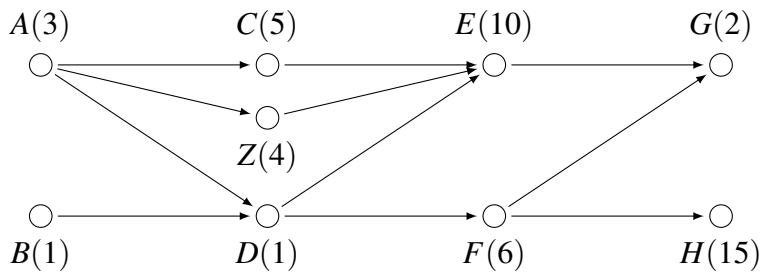


Goal: Learn the Backflow Algorithm and implement the Critical Path Algorithm.

1. Backflow Algorithm

- (a) Introduce an “end” vertex, say X , with a time of $[0]$.
- (b) From X , move back through every vertex assigning it the maximum time to reach vertex X .

2. Apply the **Backflow Algorithm** to the digraph below.



3. Use your work above to answer the questions below.

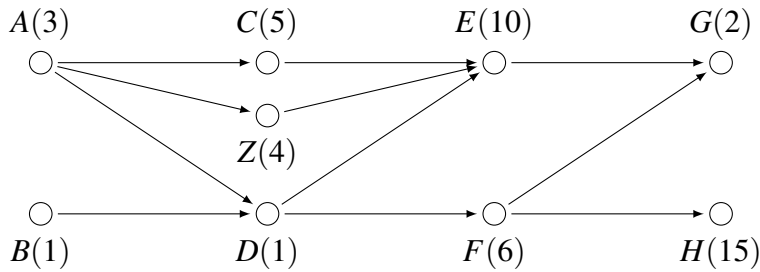
- (a) Find a critical path and the critical time in the digraph above. What do you observe about the numbers you produced in the Backflow Algorithm?

- (b) Determine the priority list using the **Decreasing Time Algorithm**.

- (c) Determine the priority list by ordering the the vertices according to decreasing **critical time** (the labels from the Backflow Algorithm).

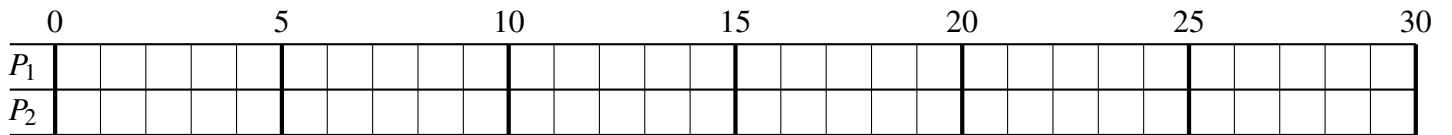
4. Critical Path Algorithm

5. Use your two priority lists from the previous page to construct a schedule using two processors.



(a) decreasing time priority list: _____

time	
done	
ready	



(b) decreasing **critical** time priority list: _____

time	
done	
ready	

