Review 12-3

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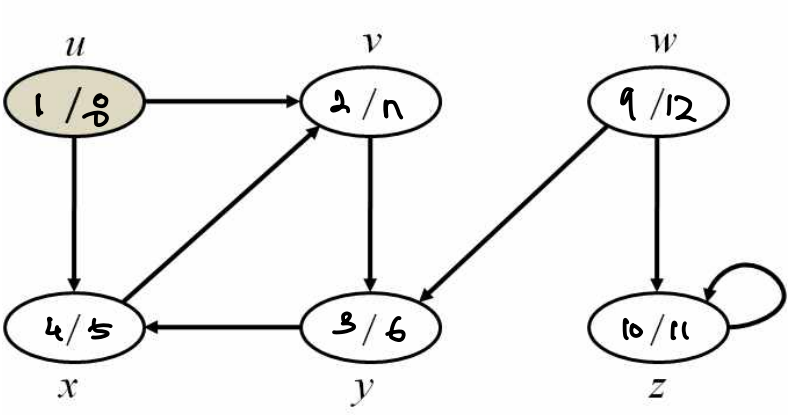
1. Show how DFS works on the following graph. Show the discovery and finishing times for each vertex, and show the classification of each edge. (Assume that the DFS procedure considers the vertices in alphabetical order and each adjacency list is ordered alphabetically.)



2. Fill in the blanks in the following pseudocode for BFS.

```
DFS(G)
    for each vertex u ∈ G.V
        u.color = WHITE
        u.π = NIL
    time = 0
    for each vertex u ∈ G.V
        if u.color == WHITE
            DFS-VISIT(G,u)

DFS-VISIT(G, u)
    time = time + 1
    u.d = time
    u.color = GRAY
    for each v ∈ G.Adj[u]
        if v.color == WHITE
            v.π = u
            BFS-VISIT(G,v)
    u.color = BLACK
    time = time + 1
    u.f = time
```