Dennis Kuzminer
CSCI-UA 310-001 PS3a

5. `

a. For each C_i (i in [1, k])
    For each v in C_i
        Map[v]=i

   Run time of O(n)

b. For each C_i (i in [1, k])
    For each v in C_i up until the number of edges in C_i or m
        Find some node x that is connected to some node v by an edge
        If Map[v] != Map[x]
            Add v → x into L

   Run time on O(m)

c. Extra: Remove all dependencies that satify the condition
   u → v is a duplicate to x → y if v is a different node from y and Map[u] == Map[x] and Map[v] == Map[y]