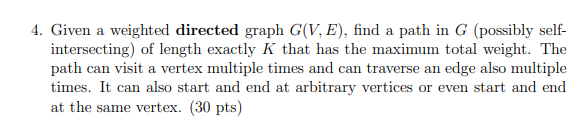
ASSIGNMENT4 QUESTION4



**Answer:**

For every node and every we need to find the maximum weight path of length exactly k.

Let be the maximum weight path of length exactly which end at.

Let is the weight of edge from node x to node y.

Solve the subproblems in the order , … , for every node i.

For every we have:

For all node m can go to i.

**To be noticed, if = 0, then should also be 0, since there is no path that have length exactly (k-1) to m node. Try other m. If there is no more m make 0, It means there is no path that have exactly length (k) to the node I, so**

And we have some base case:

If there is no such node x,

The final solution will be given by

The time complexity for this solution will be Since we will check every node and every edge it connected the node.