```
%%% Q.7: Which nodes appear most abundantly across all paths (starting from each
graph-node)? Are these nodes significant in any way?

% Get graph-node and number of times it appears across all graph paths
nodeCounts = zeros(size(acyclicPaths, 1), 1); % Column vector to count number of
path appearances for each graph-node

for inAcyclicPaths = 1:size(acyclicPaths, 1) % Iterate through all paths on STG

    rowAcyclicPaths = acyclicPaths{inAcyclicPaths, 1}; % Extract all paths
starting from current graph-node

    pathsInRow = length(rowAcyclicPaths); % Extract number of paths starting
from current graph-node

    for inNodePaths = 1:pathsInRow % Iterate through all paths starting from
current graph-node

        pathHere = rowAcyclicPaths{inNodePaths}; % Extract current path

        pathLength = length(pathHere); % Extract number of graph-nodes in
current path

        for inPathHere = 1:pathLength % Iterate through all graph-nodes in
current path

            currentNode = pathHere(inPathHere); % Extarct current graph-node in
path

            nodeCounts(currentNode) = nodeCounts(currentNode) + 1; % Update
number of times current graph-node appears

        end

    end

end

graphNodes = startNodes'; % Graph-nodes column for table

nodeFrequencyTable = table(graphNodes, nodeCounts); % Create graph-node
frequencies table

nodeFrequencyTableSorted = sortrows(nodeFrequencyTable, 2, 'descend');

% Display table
disp('Graph-nodes and number of appearances across all graph paths:');
disp(nodeFrequencyTableSorted);

%%% Graph-nodes that appear 100 or more times, across all graph paths, are:
%%% 48, 55, 61, 39 (FPs excluded)
```

Output:

Graph-nodes and number of appearances across all graph paths:

graphNodes	nodeCounts
54	379
45	323
20	309
48	136
55	125
61	107
39	100
29	99
37	96
53	96
52	94
9	88
11	88
38	86
35	85
3	80
12	76
10	73
13	72
22	72
46	63
31	56
32	56
36	46
64	43
63	40
15	37

16	37
40	36
41	33
28	32
43	30
21	27
24	27
56	27
60	27
62	27
23	25
33	22
1	21
47	21
25	19
42	17
44	17
5	15
57	14
59	14
27	13
49	13
17	12
26	12
4	10
7	9
14	9
30	9
19	7
51	6
58	6
6	5

8	4
2	3
18	3
34	3
50	3