CS 3305 - Sample Runs for Assignment 9 Graphs

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========================= Test 1 =====================

Input Matrix:
1     1
1     1

Reachability Matrix:
3     3
3     3

In-degrees:
Node 1 in-degree is 2
Node 2 in-degree is 2

Out-degrees:
Node 1 out-degree is 2
Node 2 out-degree is 2

Total number of self-loops: 2
Total number of cycles of length 2 edges: 4
Total number of paths of length 1 edge: 4
Total number of paths of length 2 edges: 8
Total number of paths of length 1 to 2 edges: 12
Total number of cycles of length 1 to 2 edges: 6

========================= Test 2 =====================

Input Matrix:
1     1     1
1     1     1
1     1     1

Reachability Matrix:
13    13    13
13    13    13
13    13    13

In-degrees:
Node 1 in-degree is 3
Node 2 in-degree is 3
Node 3 in-degree is 3

Out-degrees:
Node 1 out-degree is 3
Node 2 out-degree is 3
Node 3 out-degree is 3

Total number of self-loops: 3
Total number of cycles of length 3 edges: 27
Total number of paths of length 1 edge: 9
Total number of paths of length 3 edges: 81
Total number of paths of length 1 to 3 edges: 117
Total number of cycles of length 1 to 3 edges: 39

========================= Test 3 =====================

Input Matrix:
1     1     1     1
1     1     1     1
1     1     1     1
1     1     1     1
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Reachability Matrix:
85    85    85    85
85    85    85    85
85    85    85    85
85    85    85    85

In-degrees:
Node 1 in-degree is 4
Node 2 in-degree is 4
Node 3 in-degree is 4
Node 4 in-degree is 4

Out-degrees:
Node 1 out-degree is 4
Node 2 out-degree is 4
Node 3 out-degree is 4
Node 4 out-degree is 4

Total number of self-loops: 4
Total number of cycles of length 4 edges: 256
Total number of paths of length 1 edge: 16
Total number of paths of length 4 edges: 1024
Total number of paths of length 1 to 4 edges: 1360
Total number of cycles of length 1 to 4 edges: 340


========================== Test 4 ======================

Input Matrix:
1       1       1       1       1
1       1       1       1       1
1       1       1       1       1
1       1       1       1       1
1       1       1       1       1

Reachability Matrix:
781     781     781     781     781
781     781     781     781     781
781     781     781     781     781
781     781     781     781     781
781     781     781     781     781

In-degrees:
Node 1 in-degree is 5
Node 2 in-degree is 5
Node 3 in-degree is 5
Node 4 in-degree is 5
Node 5 in-degree is 5

Out-degrees:
Node 1 out-degree is 5
Node 2 out-degree is 5
Node 3 out-degree is 5
Node 4 out-degree is 5
Node 5 out-degree is 5

Total number of self-loops: 5
Total number of cycles of length 5 edges: 3125
Total number of paths of length 1 edge: 25
Total number of paths of length 5 edges: 15625
Total number of paths of length 1 to 5 edges: 19525
Total number of cycles of length 1 to 5 edges: 3905
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