CSC 212 Tutorial #14 Solution

Graphs

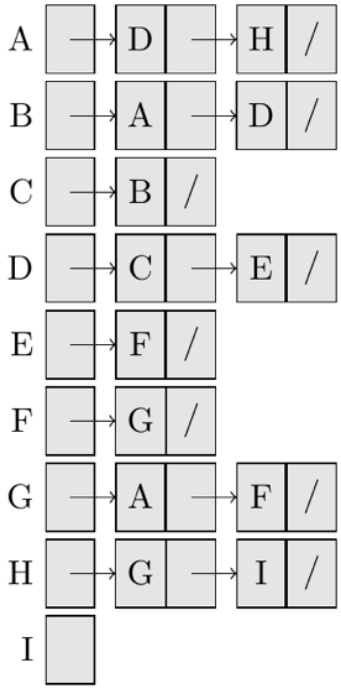
Problem 1

-	A	B	C	D	E	F	G	H	I
A	0	1	0	1	0	0	1	1	0
B	1	0	1	1	0	0	0	0	0
C	0	1	0	1	0	0	0	0	0
D	1	1	1	0	1	0	0	0	0
E	0	0	0	1	0	1	0	0	0
F	0	0	0	0	1	0	1	0	0
G	1	0	0	0	0	1	0	1	0
H	1	0	0	0	0	0	1	0	1
I	0	0	0	0	0	0	0	1	0

BFS: B, A, C, D, G, H, E, F, I

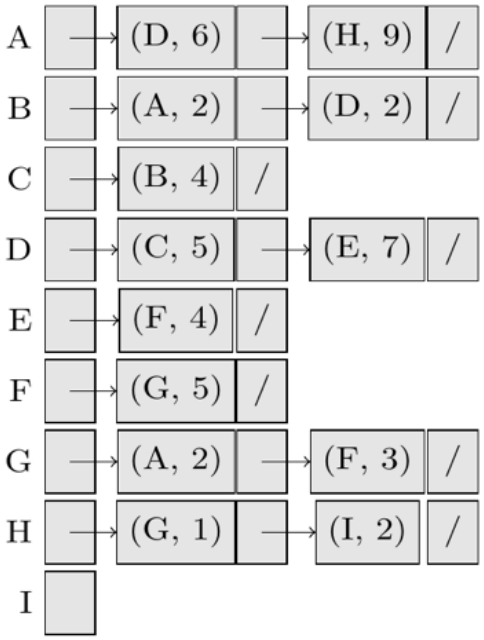
DFS: B, D, E, F, G, H, I, C, A

Problem 2

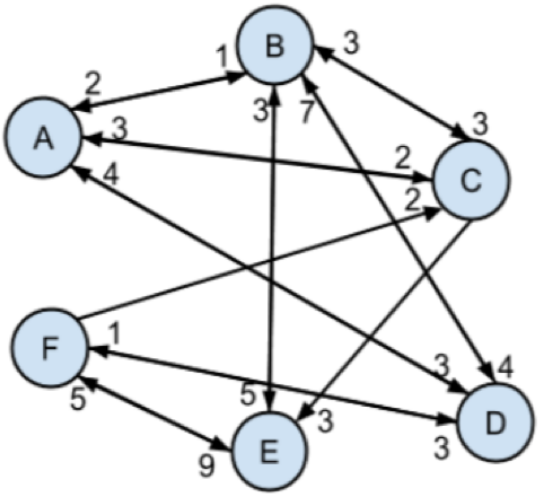
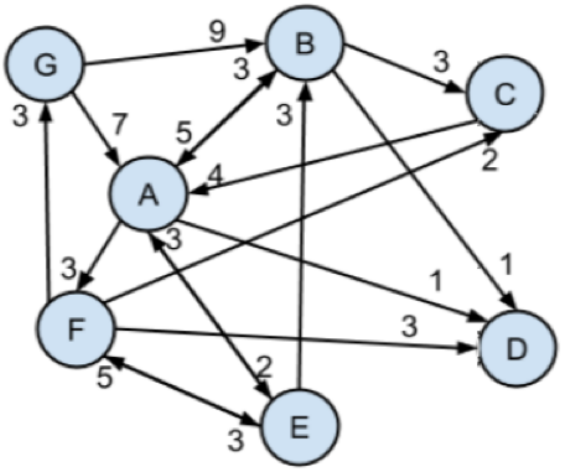


Problem 3

-	A	B	C	D	E	F	G	H	I
A	0	0	0	6	0	0	0	9	0
B	2	0	0	2	0	0	0	0	0
C	0	4	0	0	0	0	0	0	0
D	0	0	5	0	7	0	0	0	0
E	0	0	0	0	0	4	0	0	0
F	0	0	0	0	0	0	5	0	0
G	2	0	0	0	0	3	0	0	0
H	0	0	0	0	0	0	1	0	2
I	0	0	0	0	0	0	0	0	0


A
(D, 6)
(H, 9)
/
B
(A, 2)
(D, 2)
/
C
(B, 4)
/
D
(C, 5)
(E, 7)
/
E
(F, 4)
/
F
(G, 5)
/
G
(A, 2)
(F, 3)
/
H
(G, 1)
(I, 2)
/
I

Problem 4


A
B
C
D
E
F
1
2
3
3
7
3
3
2
4
2
1
3
4
5
5
3
9
3

Problem 5