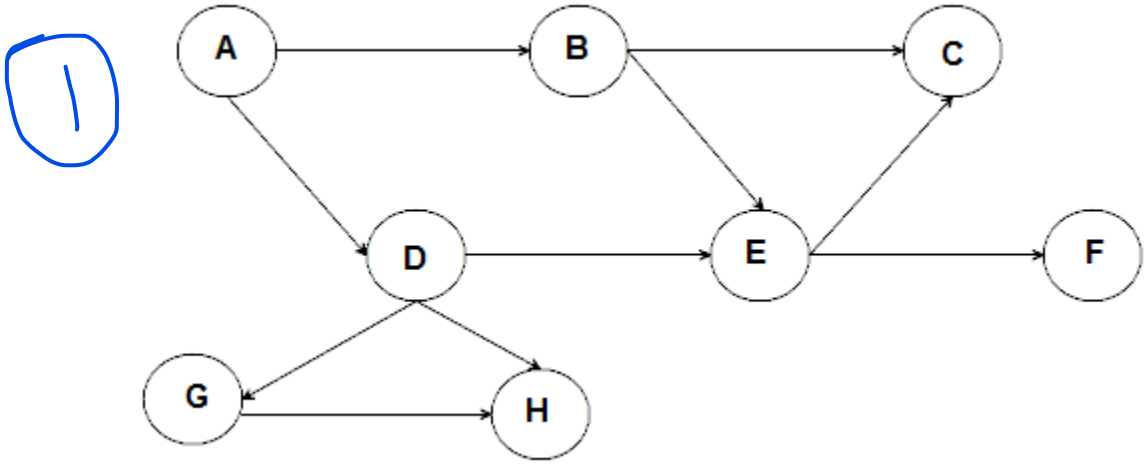
0/1 Knapsack Problem:

For the given set of items and knapsack capacity = 10 kg, find the optimal solution for the 0/1 knapsack problem making use of dynamic programming approach.

value = [20, 5, 10, 40, 15, 25]
weight = [1, 2, 3, 8, 7, 4]
int W = 10

BFS & DFS:



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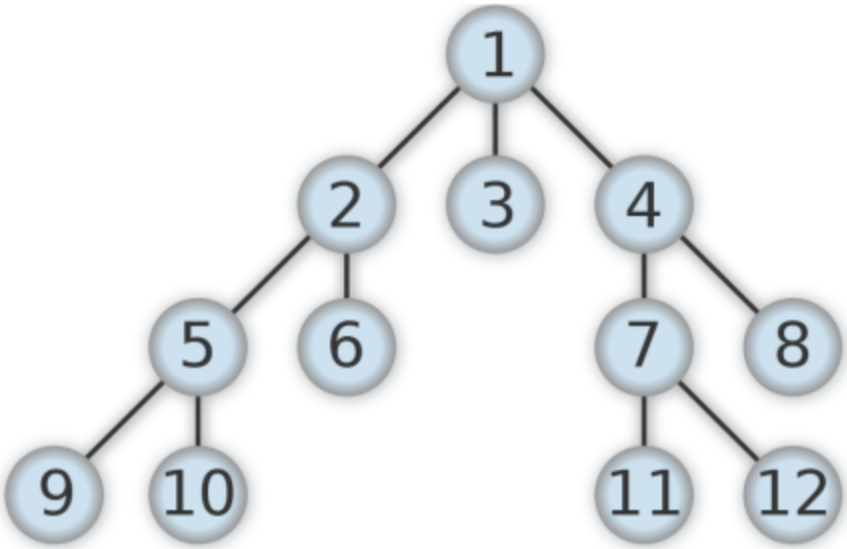

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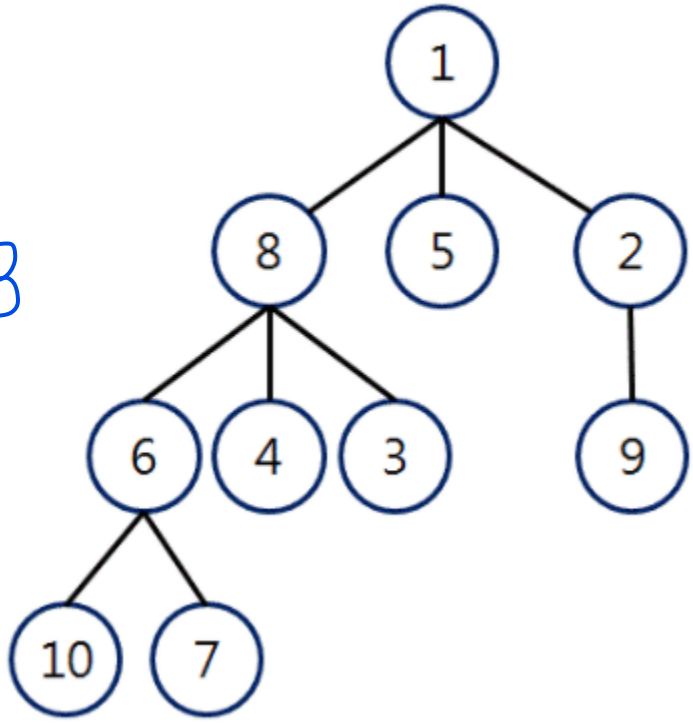

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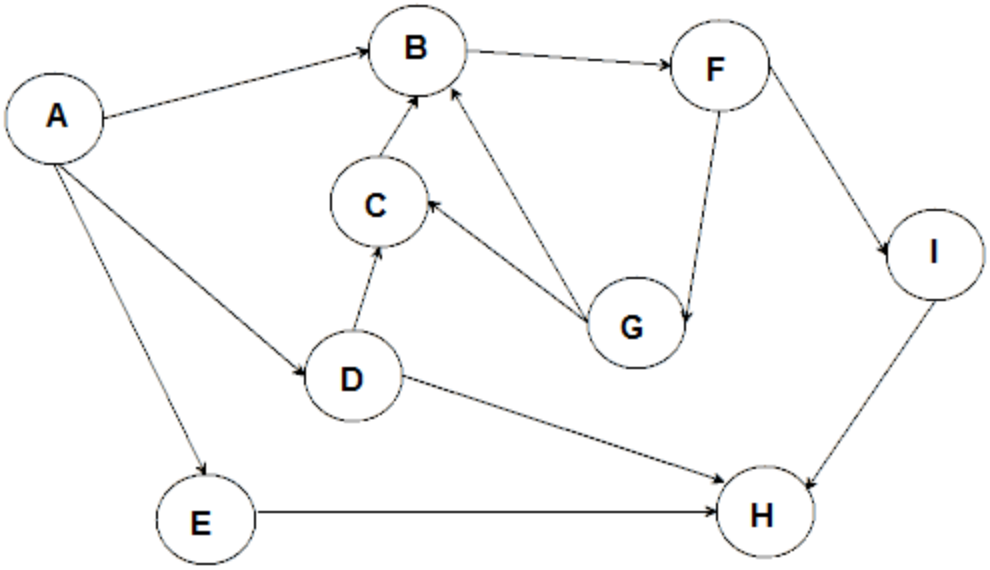

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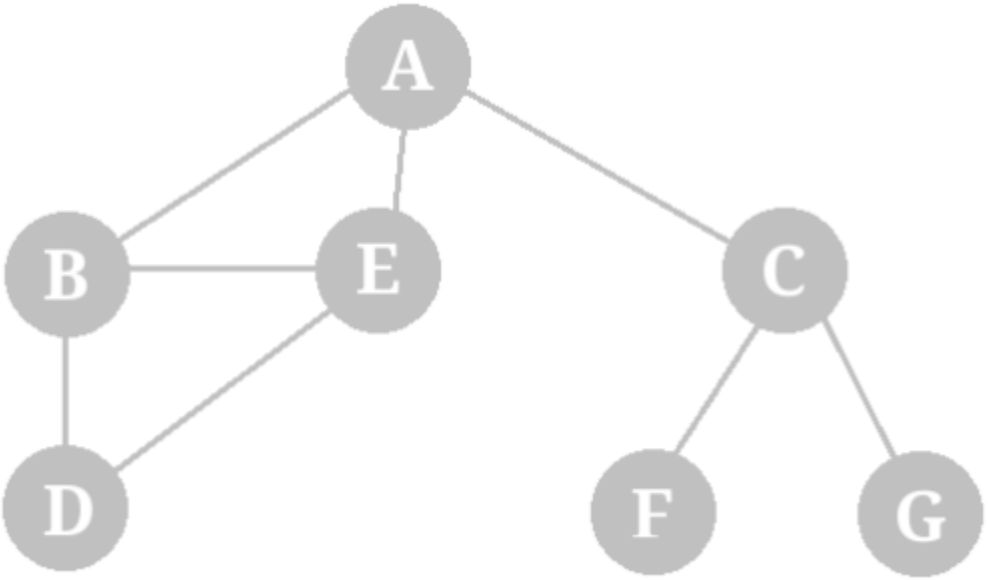
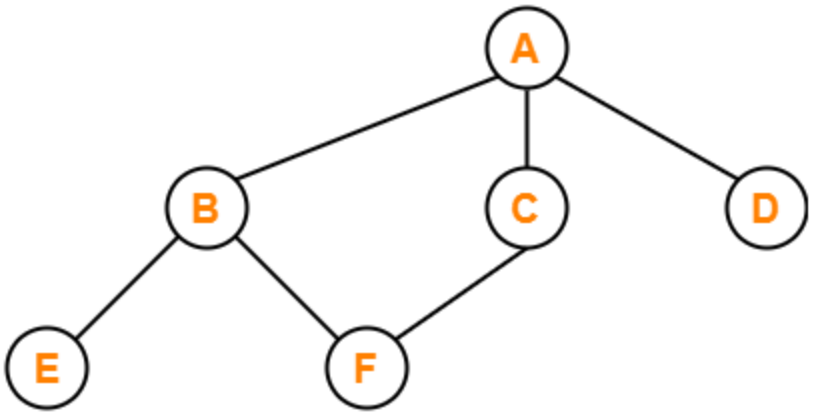




LCS:

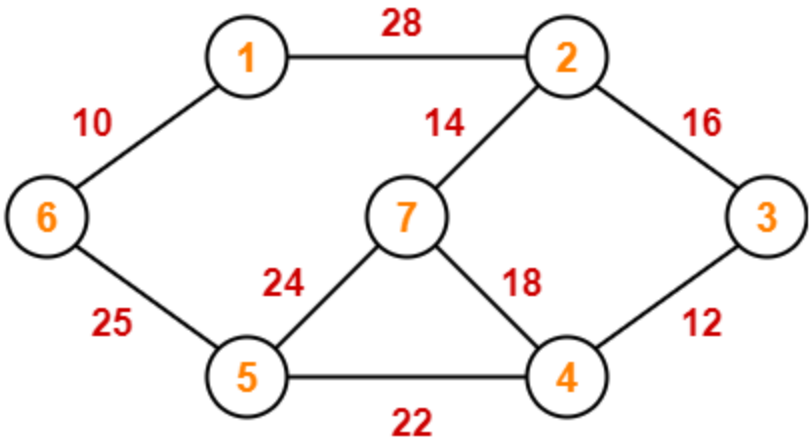
1. ABCDGH

   AEDFHR

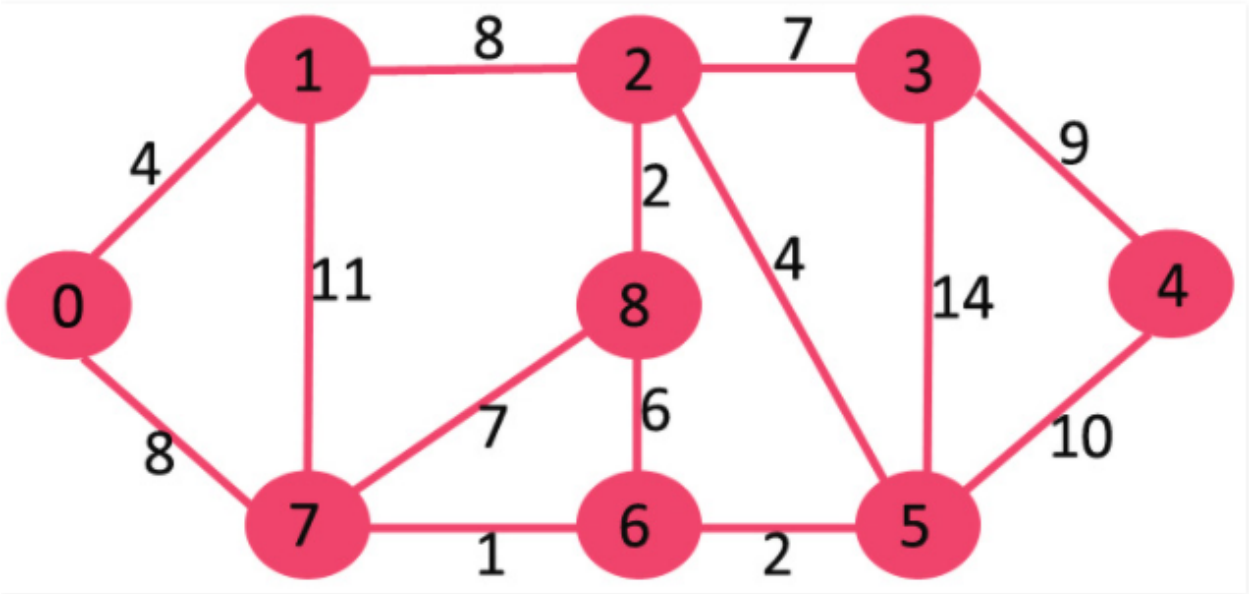
2. abbcdgf
   bbadcgf

3. ABCDEFGH
   ABDFGHI

Prims/Kruskal's:


1
2
3
4
5
6
7
28
10
14
16
24
18
25
12
22

Dijkstra:


0
1
2
3
4
5
6
7
8
8
7
4
2
11
4
14
9
8
7
6
10
1
2

0/1 Knapsack(Greedy):

Find the optimal solution for the fractional knapsack problem making use of greedy approach. Consider:

n = 4
m = 6 kg
(w1, w2, w3, w4) = (3,2,10,2)
(p1, p2, p3, p4) = (15,20,30,14)