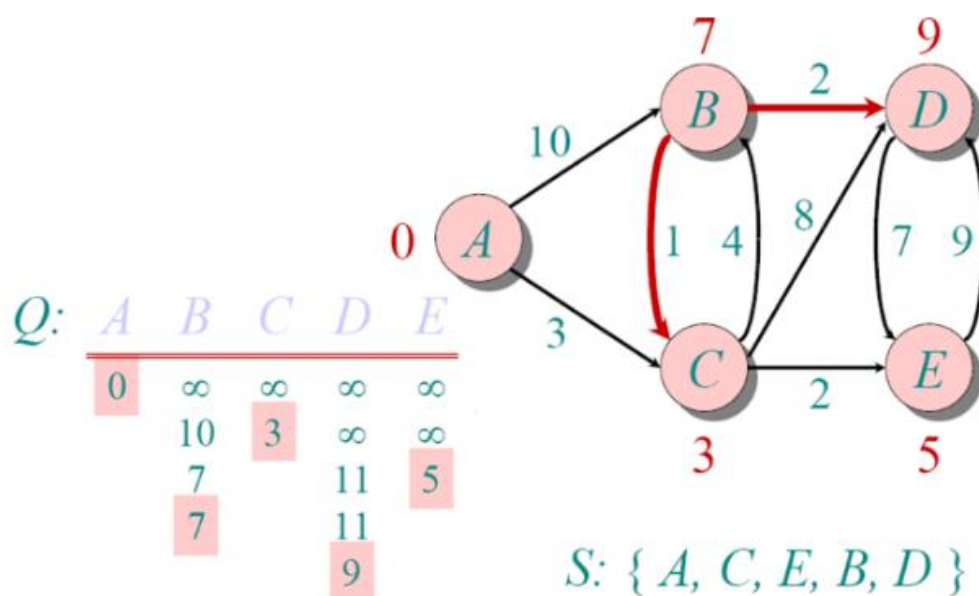| Symbol	Frequency	Encoding type		
		One	Two	Three
A	11	000	111	000
B	12	001	110	001
C	13	100	011	010
D	14	101	010	011
E	24	01	10	10
F	26	11	00	11

(a)

(b)
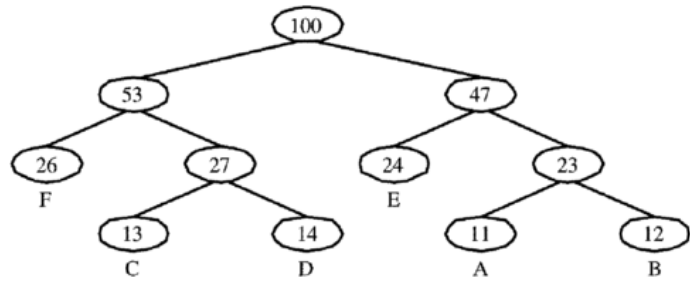
Huffman
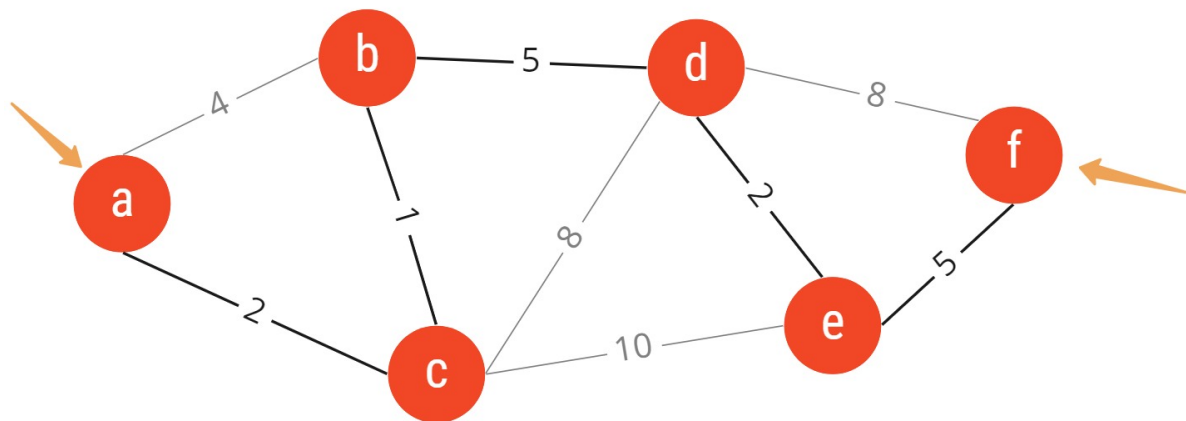
$$2 + 1 + 5 + 2 + 5 = 15$$
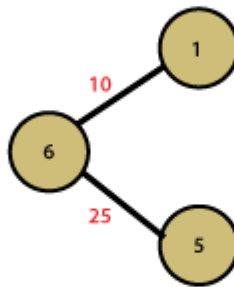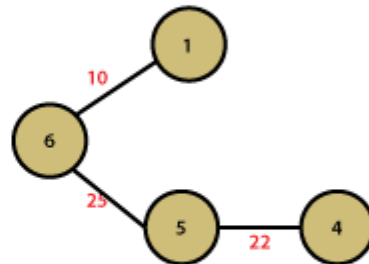
Shortest Path

DIJKSTRA ANIMATED EXAMPLE

Q:	A	B	C	D	E
	0	∞	∞	∞	∞
		10	3	∞	∞
		7		11	5
		7		11	
				9	

S: { A, C, E, B, D }

Dijkstra

Prim's Algorithm
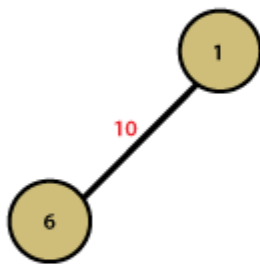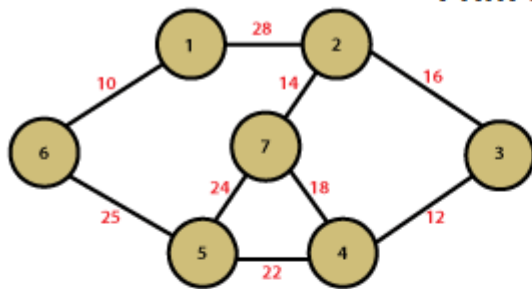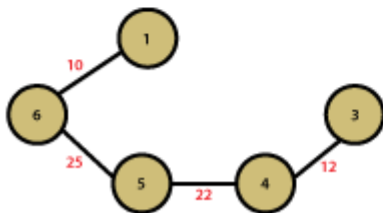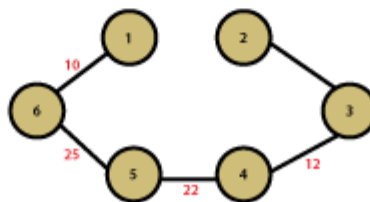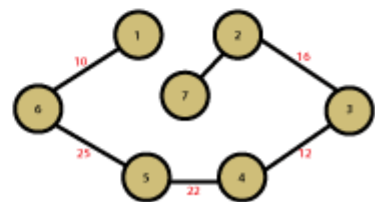
Prim

Kruskal's Algorithm

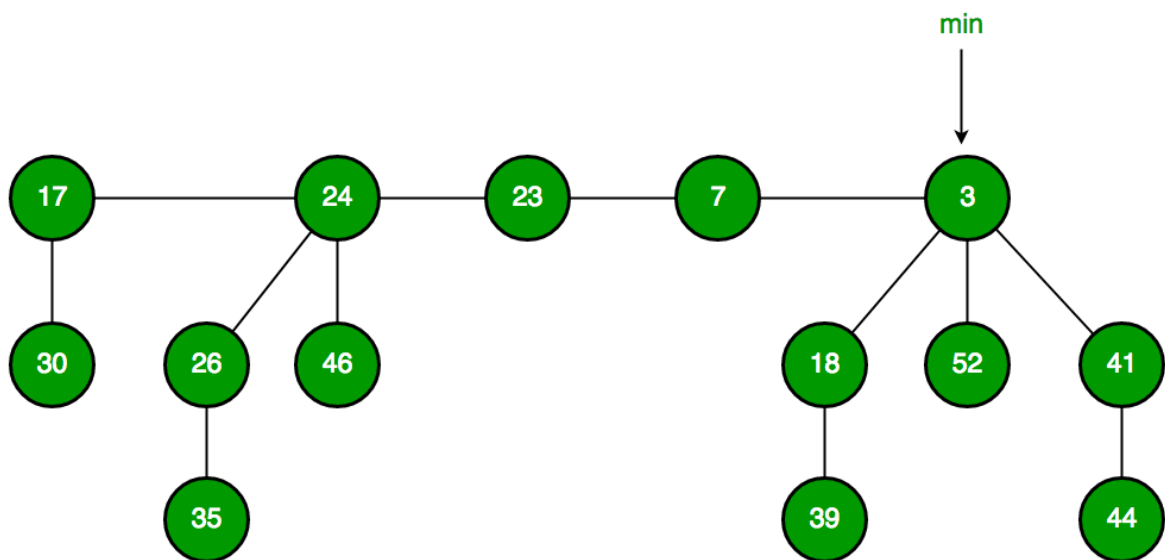| 1	2	3
Given a network…………	*Choose the shortest edge (if there is more than one, choose any of the shortest)……..*	*Choose the next shortest edge and add it……...*
4	5	6
Choose the next shortest edge which wouldn't create a cycle and add it.	*Choose the next shortest edge which wouldn't create a cycle and add it.*	*Repeat until you have a minimal spanning tree.*

Kruskall
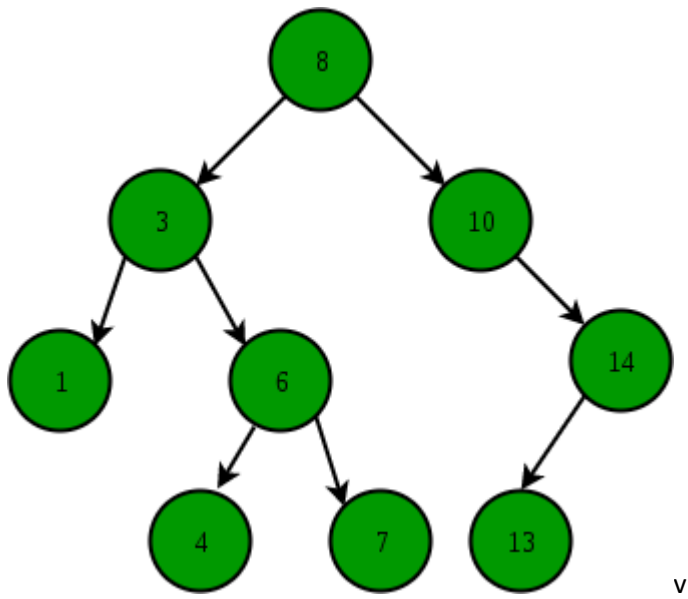
Binary search tree
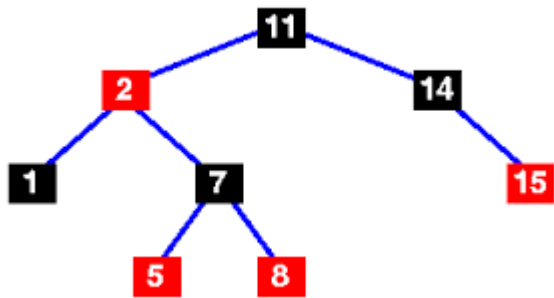
Red black search tree

Fibonacci heap