Informed Search Algorithms :-

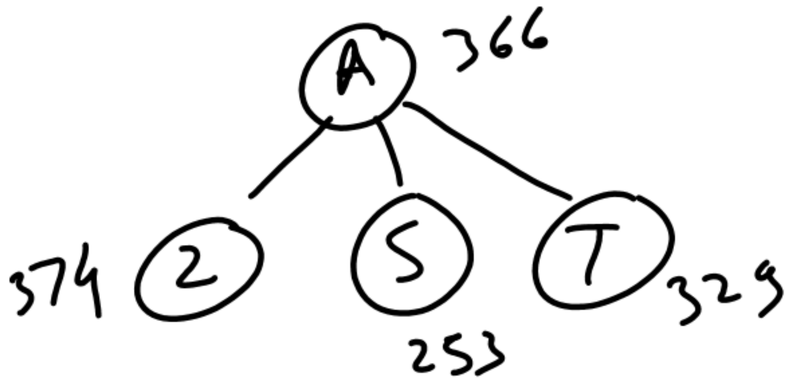
1) Greedy Best first Search (GBFS)

$$f(n) = h(n)$$

Ex :-
Find path from A to B.

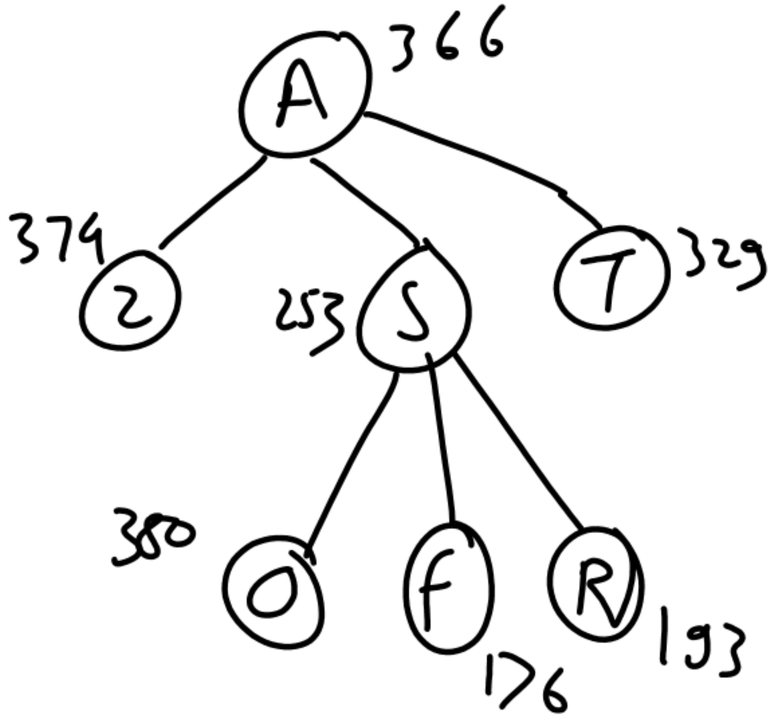
(A) 366 closed list = { }

open list = A



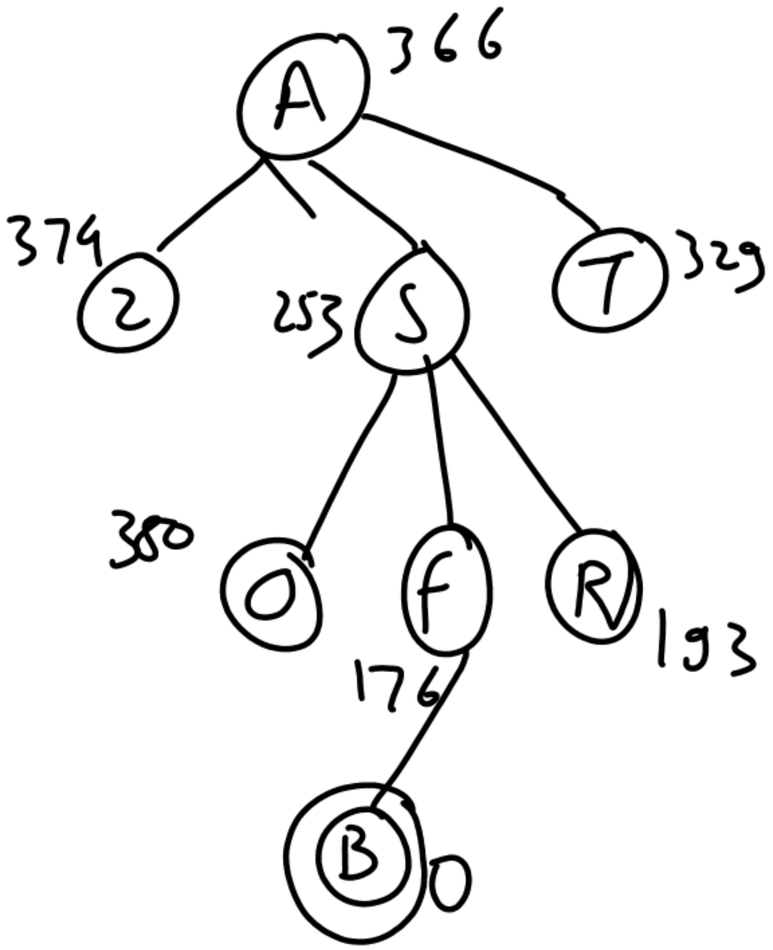
C → A

O → Z, S, T



C → A, S

O → Z, [illegible] T, O, F, R



C - A, S, f

O → Z, T, O, R, B

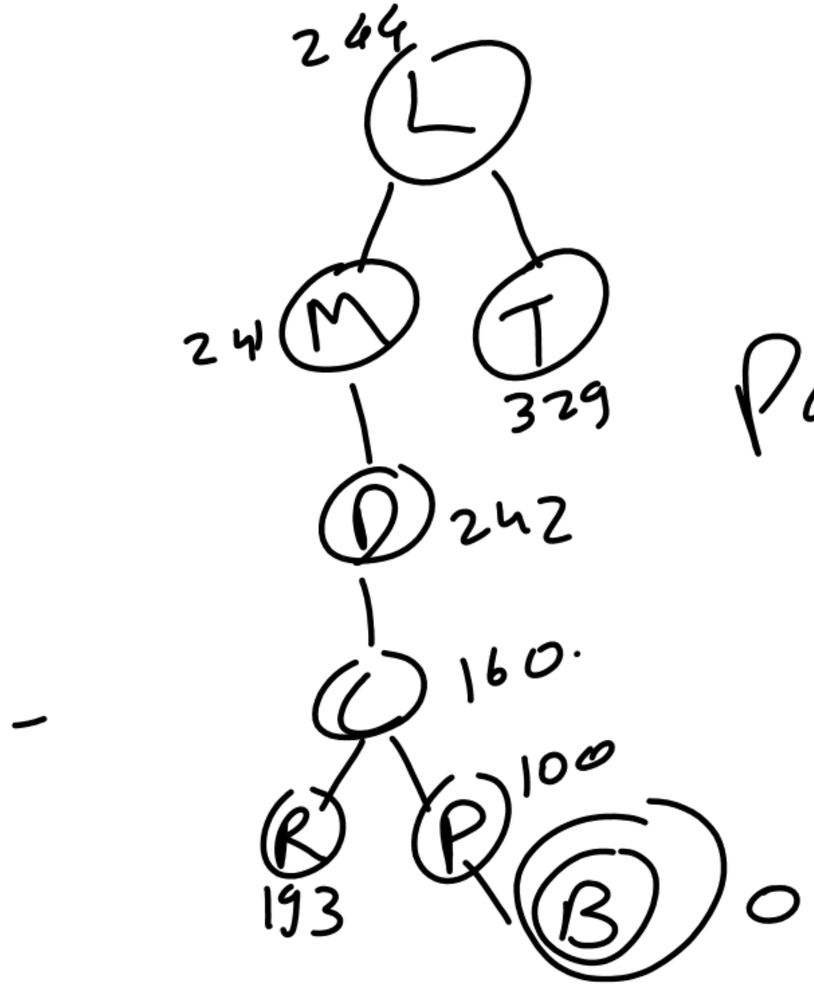
C → A, S, F, B

O → Z, T, O, R

path path → A → S → F → T → B

176 3

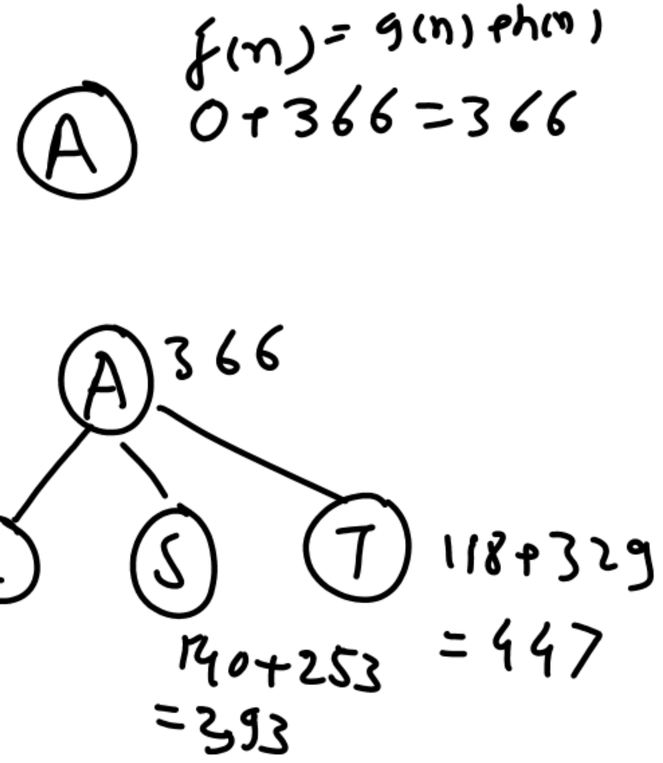
Path From L to B

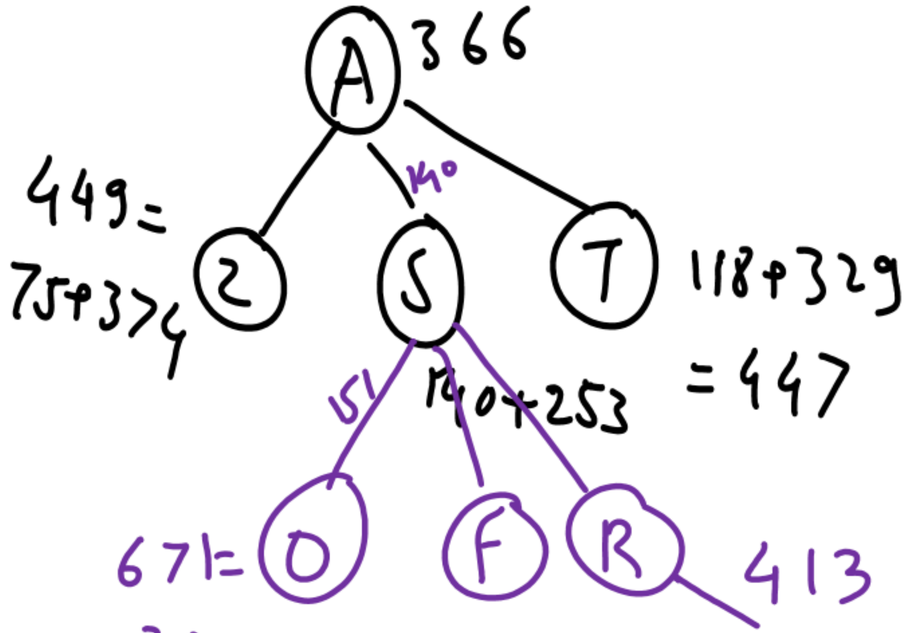


Path: L-M-D-C-P-B

A* algorithm :-

$$f(n) = g(n) + h(n)$$





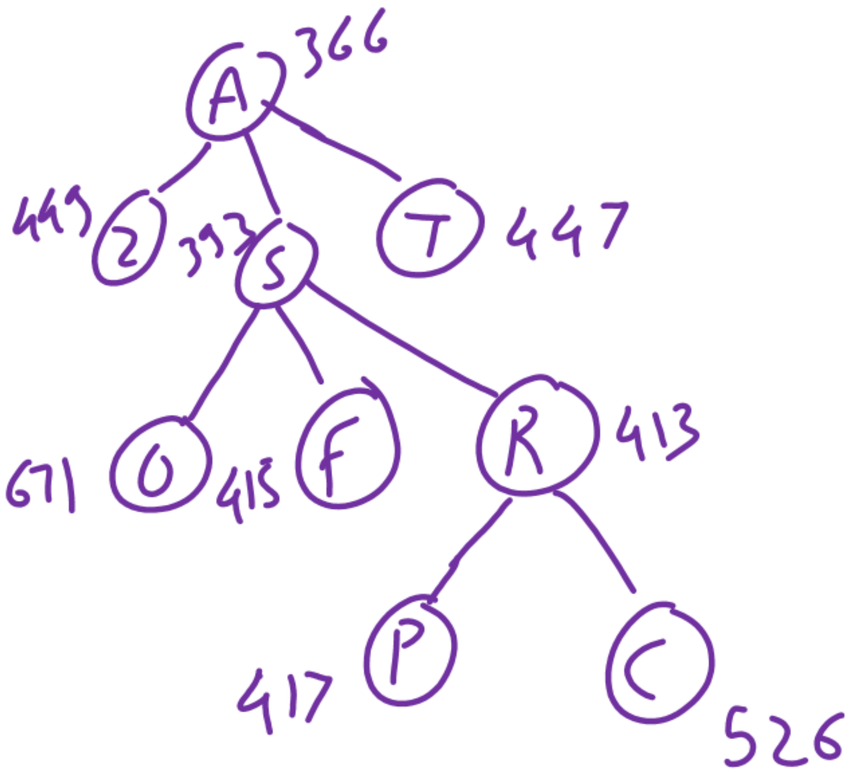
291 + 380 / h(n)

239+176
=415

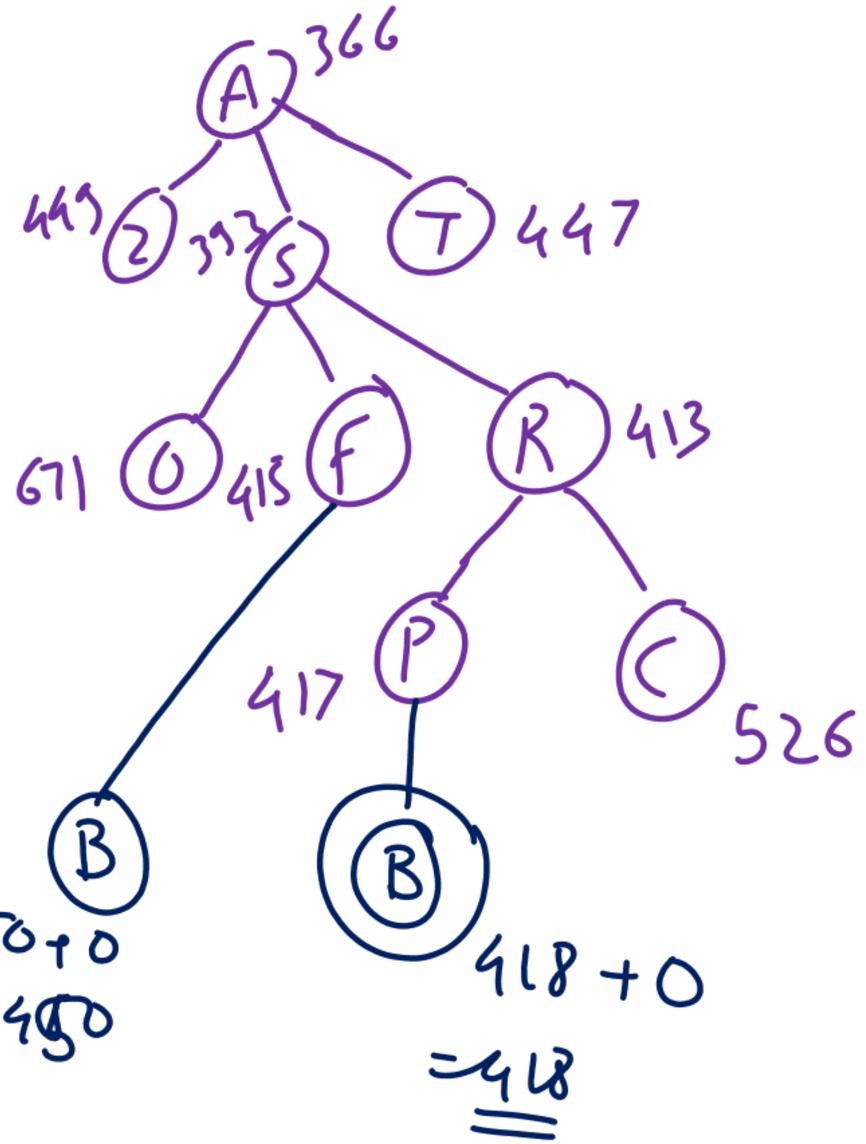
A-S=140

S→O=151

291



=393



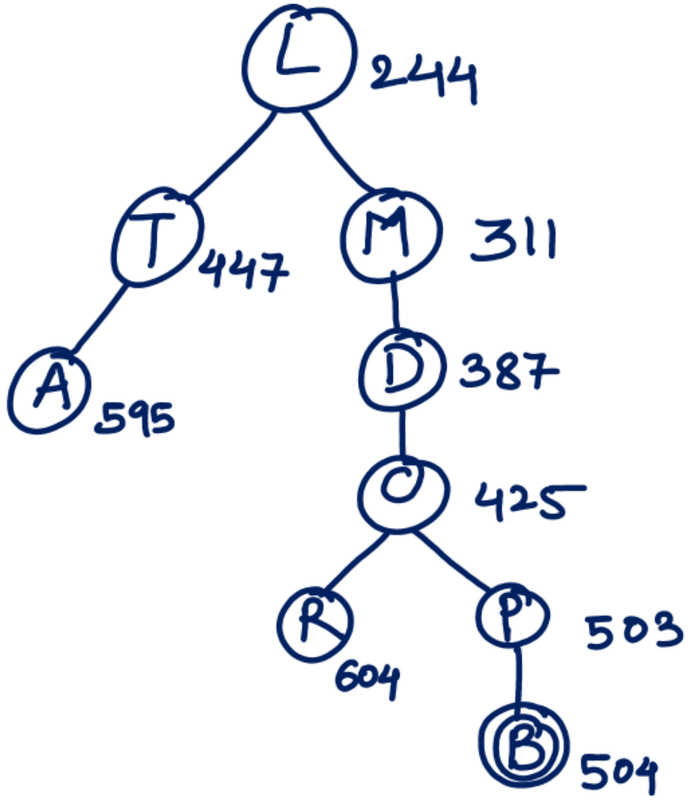
Example

2) find path from L to B

Path = A - S - R - P - B

Ex 2:. L to B path

Sol^n



Path = L → M → D → C → P → B

→ Admissible heuristic :- triangle inequality

→ Consistancy :-

$$h(n) \leq h(n, a, n') + h(n')$$