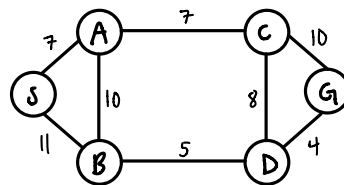


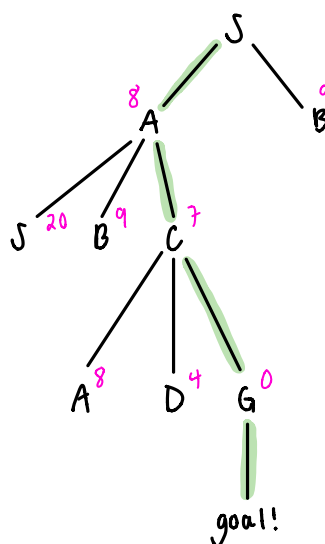
Jane Downer
CS 480 - HW 1
9/23/2020



x	h(x)
S	20
A	8
B	9
C	7
D	4
G	0

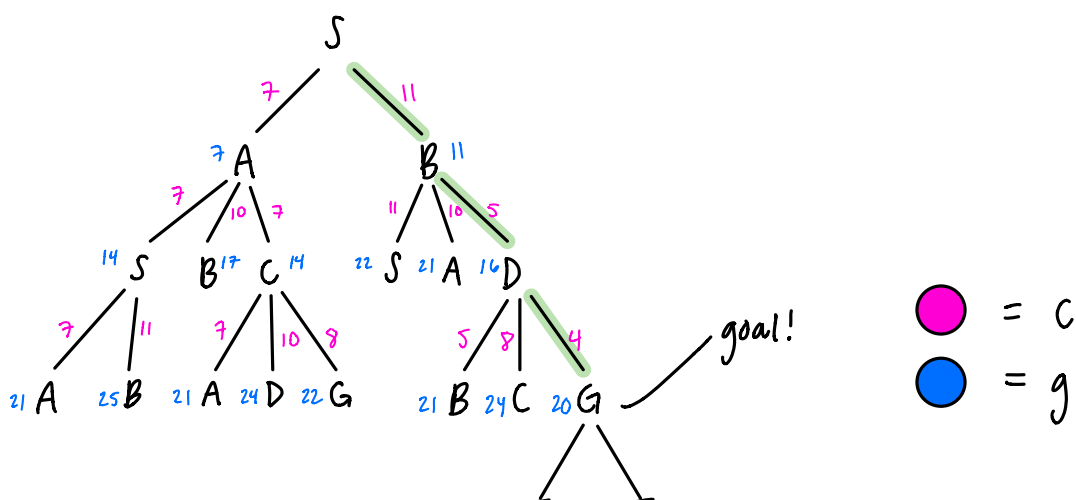
1. Greedy Binary First Tree:

↳ expand in order of h-values (choose smallest)

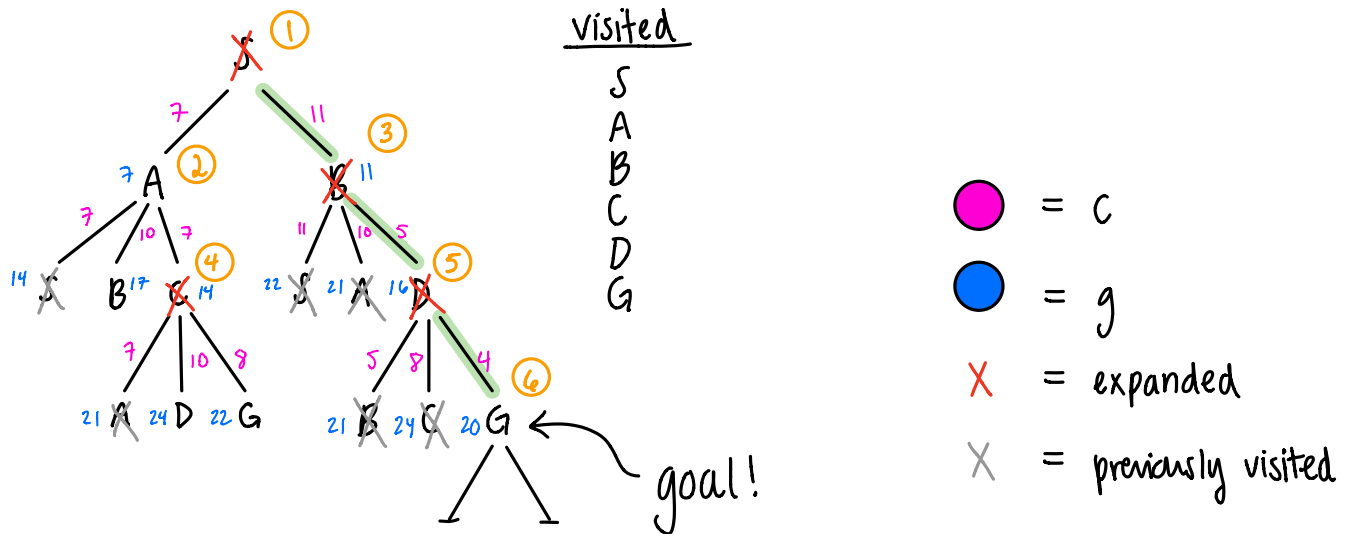


2. Uniform-Cost Tree Search

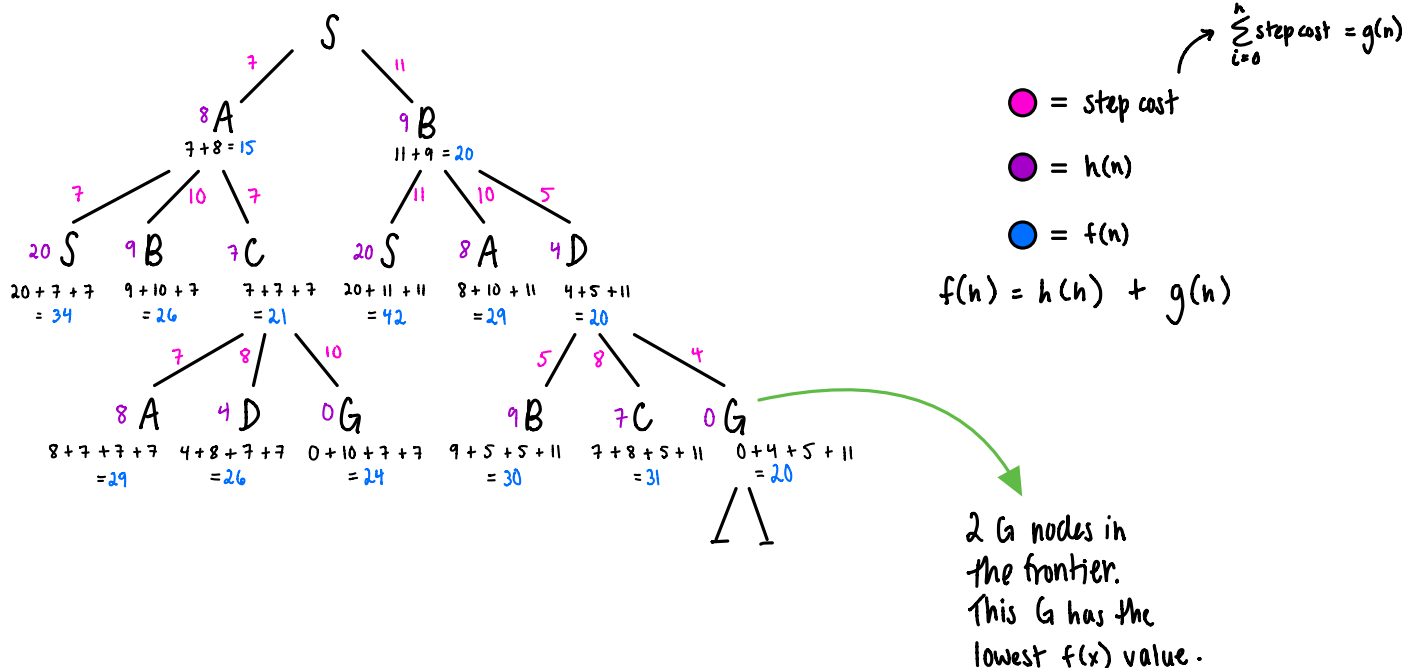
↳ expand path with smallest total cost



3. Uniform-Cost Graph Search



4. A* Tree Search

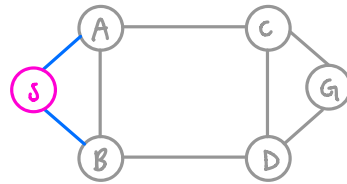


5. Admissible heuristic function

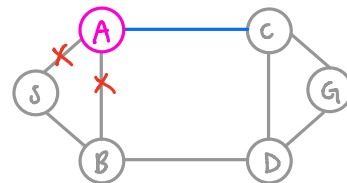
The number of edges between the given node (n) and G , such that, at each node along the way, the next step must have a rightward component.

Example: starting at S

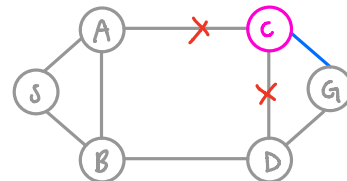
step 1: choose to move to either A or B .



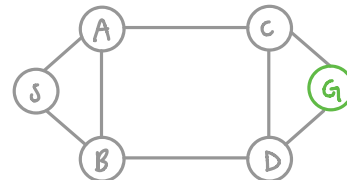
step 2: only option is to move toward C .



step 3: only option is to move toward G .



goal reached!



$$\therefore h^*(A) = 3$$

6. A* tree search: 3-puzzle problem

