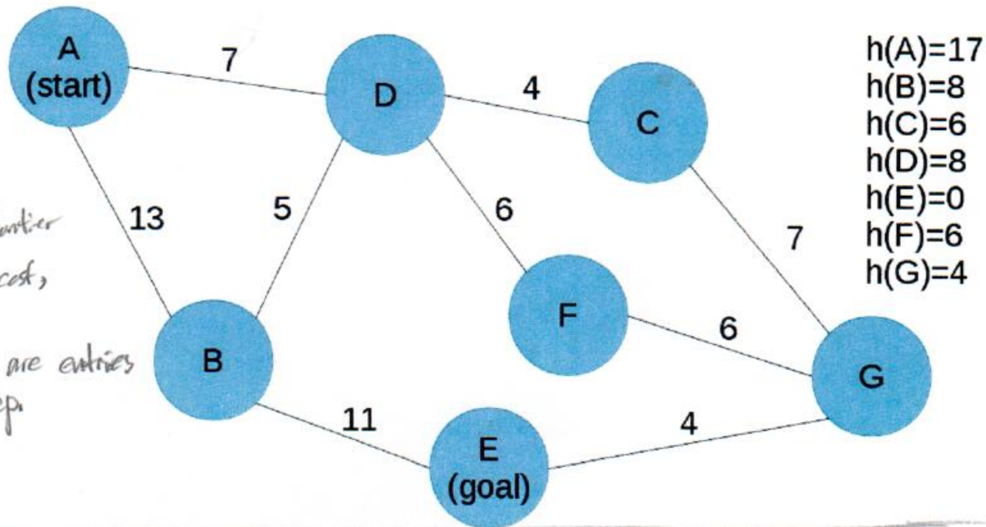
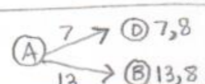
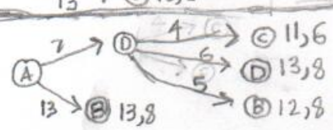
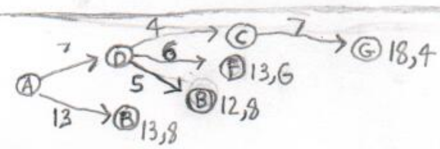
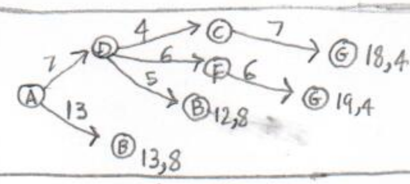
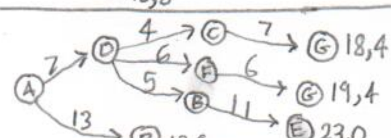
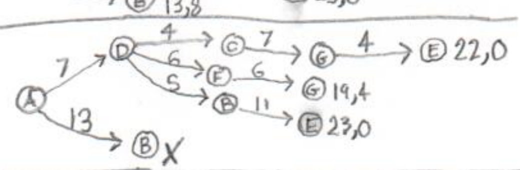
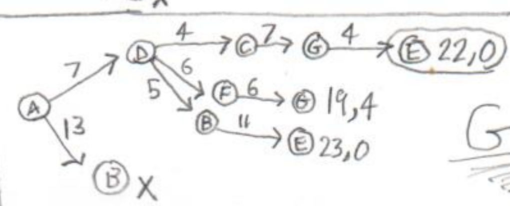
2. Informed Search – (6 points) Find the optimal path from A to E using A* Search. For each step, *clearly label* the content of the frontier, the node being expanded, and the current arrangement of the search tree.



Notation:

- (s, p, h): Entries in frontier where s = state, p = path cost, h = heuristic cost
- Circled frontier entries are entries expanded on that step.

Step	Frontier	Closed	Tree Arrangement
1	(A,0,17)		
2	(D,7,8) (B,13,8)	A	
3	(C,11,6) (F,13,6) (B,12,8) (B,13,8)	A,D	
4	(F,13,6) (B,12,8) (B,13,8) (G,18,4)	A,D,C	
5	(B,12,8) (B,13,8) (G,18,4) (G,19,4)	A,D,C,F	
6	~~(B,13,8)~~ (G,18,4) (G,19,4) (E,23,0)	A,D,C,F,B	
7	(E,22,0) (G,19,4) (E,23,0)	A,D,C,F,B, G, E	

GOAL !!!!!!!!!!!!!