

CS540. Assign2 10/20/2015.

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- Q1
- 1.1 BFS: 7, 6, 2, 12, 11, 10, 5, 10, 1, 3
 - 1.2 Uni: 2, 3, 6, 7, 1, 3, 2, 6, 9, 5
 - 1.3 DFS: 7, 11, 13, 15, 8, 1, 14, 3, 6, 10
 - 1.4 Her: 7, 6, 2, 12, 7, 11, 10, 7, 5, 6

Question 2 (Y = admissible, N = not admissible)

- | | |
|------|------|
| A. Y | E. Y |
| B. N | F. Y |
| C. N | G. Y |
| D. Y | |

- Q 3.
- 3.1 F
 - 3.2 T
 - 3.3 T
 - 3.4 F

- Q 4
- 4.1 $A(15) = \boxed{21}$
 - 4.2 $B(\text{initial state}) = \boxed{15}$
 - 4.3 $D(\text{initial state}) = \boxed{32}$

Step#	Tile	hc()	gc()	fc()
0(initial)	N/A	13	0	13
1	6	12	1	13
2	10	11	2	13
3	13	11	3	14
4	8	11	3	14
5	15	10	4	14
6	1	12	2	14
7	14	11	3	14

(For the tree, please see next Page. thanks)

(h, g, f)
 $= (13, 0, 13)$

9	12	5	4
2	<input type="checkbox"/>	7	11
3	6	10	13
14	1	8	15

6, 10, 13, 8, 15, 1, 14

