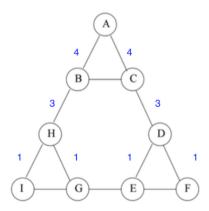
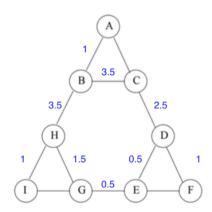
2012-11598 민두기 1-(a).



1-(b).



2.

Using symmetry:
$$AB = AC = DF = EF = HI = IG = 8/2 = 4$$

 $BC = HG = DE = 13/2 = 6.5$
 $HB = CD = GE = 19/2 = 9.5$

3-(a).

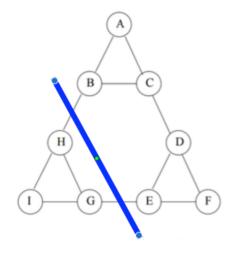
	1	2	3	4	5	6	7	8	9
1	2	-1	-1	0	0	0	0	0	0
2	-1	3	-1	0	0	0	0	-1	0
3	-1	-1	3	-1	0	0	0	0	0
4	0	0	-1	3	-1	-1	0	0	0
5	0	0	0	-1	3	-1	-1	0	0
6	0	0	0	-1	-1	2	0	0	0
7	0	0	0	0	-1	0	3	-1	-1
8	0	-1	0	0	0	0	-1	3	-1
9	0	0	0	0	0	0	-1	-1	2

3-(b)

second smallest eigenvalue is 0.6972. (choose first appeared) corresponding eigen vector is

- -0.267711462007941
- -0.0690631920115511
- -0.279704778634009
- -0.307322695976124
- -0.108674425979734
- -0.319316012602192
- 0.376385887987675
- 0.388379204613743
- 0.587027474610133

split point is zero



- 4-(a).6
- 4-(b). none