Chapter 10 - Question 8

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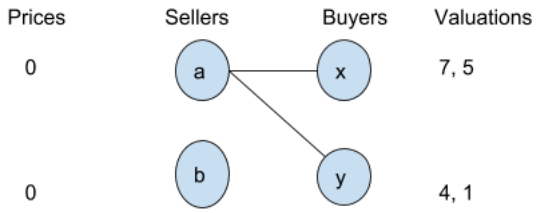
Given buyers and sellers are as follows :
buyers : a,b
sellers:x,y

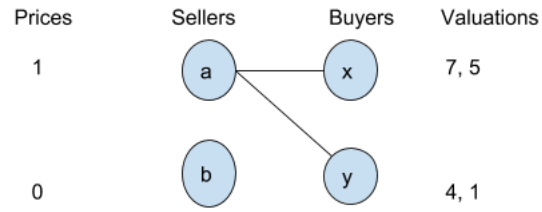
Buyer	Value for a's house	Value for b's house
x	7	5
y	4	1

Let the initial price be 0 for each seller:



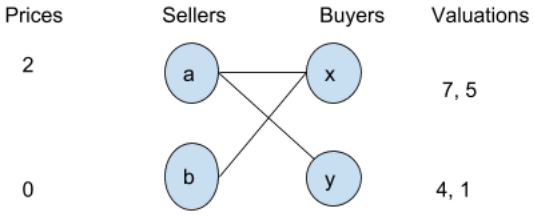
Round1
Set of buyers X and Y are constricted to neighbour a, This is not a perfect matching so seller a increases the price by 1 and the price of b remains 0.
The payoff for buyer x are as follows
a: (7-0)=7
b: (5-0)=5
The payoff of buyer y are as follows
a: (4-0)=4
b:(1-0)=1

Round2



Set of buyers X and Y are constricted to neighbour a,This is not perfect matching so seller a increases the price by 1 and the price of b remains 0.
The payoff for buyer x are as follows
a: (7-1)=6
b: (5-0)=5
The payoff of buyer y are as follows
a: (4-1)=3
b: (1-1)=0

Round3



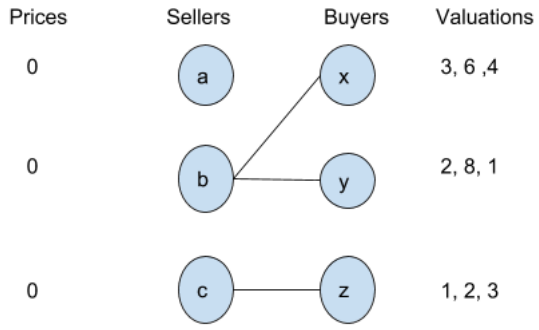
We have perfect match now. Hence the current price 2 and 0 is the market clearing price.
The payoff for buyer x are as follows
a: (7-2)=5
b: (5-0)=5
The payoff of buyer y are as follows
a: (4-2)=2
b: (1-2)=-1

Chapter10 - Question 9

Buyer	Value for a's house	Value for b's house	Value for c's house
x	3	6	4
y	2	8	1
z	1	2	3

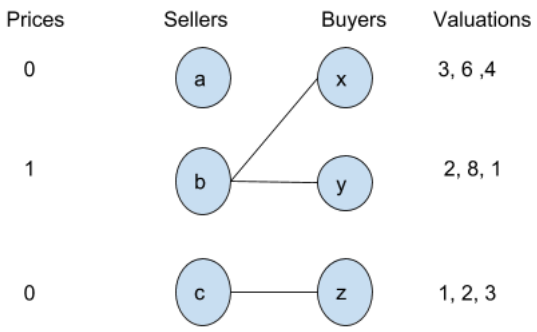
Given set of buyers and sellers are as follows:
Buyers x, y, z
Sellers a,b,c
Let the starting price for the sellers be 0.

Round1



Set of buyers consist of x and y forms a constricted set to the neighbour a. This is not a perfect matching. The price of b increases by 1 and the price of a and c remains 0.
The payoff for buyer x are as follows
a: (3-0)=3
b: (6-0)=6
c: (4-0)=4
The payoff of buyer y are as follows
a: (2-0)=2
b: (8-0)=8
c: (1-0)=1
The payoff of buyer z are as follows
a: (1-0)=1 b: (2-0)=2
c: (3-0)=3

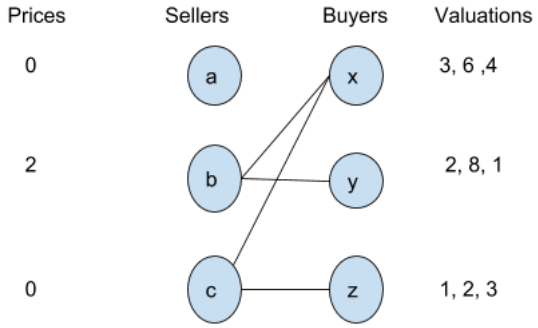
Round2



Set of buyers consist of x and y forms a constricted set to the neighbour a. This is not a perfect matching. Only price of b increases by 1.

The payoff for buyer x are as follows
a: (3-0)=3
b: (6-1)=5
c: (4-0)=4
The payoff of buyer y are as
a: (2-0)=2
b: (8-1)=7
c: (1-0)=1
The payoff of buyer z are as follows
a: (1-0)=1
b: (2-1)=1
c: (3-0)=3

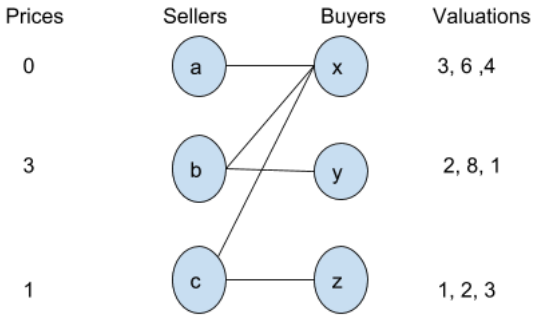
Round3



Set of buyers consist of x, y and Z forms a constricted set to the neighbour b and c. This is not a perfect matching. The price of b and c increases by 1 and the price of a and remains 0.
The payoff for buyer x are as follows
a: (3-0)=3
b: (6-2)=4

c: (4-0)=4
The payoff of buyer y are as
a: (2-0)=2
b: (8-2)=6
c: (1-0)=1
The payoff of buyer z are as follows
a: (1-0)=1
b: (2-2)=0
c: (3-0)=3

Round4



We have a perfect match now. Hence the current price 0,3,1 are the marker clearing price
The payoff for buyer x are as follows
a: (3-0)=3
b: (6-3)=3
c: (4-1)=3
The payoff of buyer y are as
a: (2-0)=2
b: (8-3)=5
c: (1-1)=0
The payoff of buyer z are as follows
a: (1-0)=1
b: (2-3)=-1
c: (3-1)=2