Step 6:

$m_{i,j}$

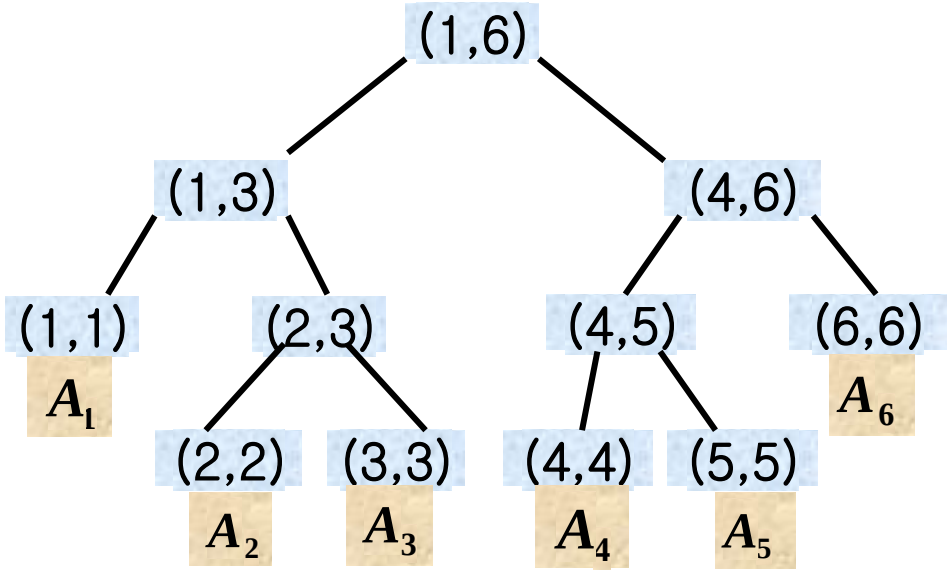
i \ j	1	2	3	4	5	6
1	0	15750	7875	9375	11875	**15125**
2		0	2625	4375	7125	10500
3			0	750	2500	5375
4				0	1000	3500
5					0	5000
6						0

$S_{i,j}$

i \ j	1	2	3	4	5	6
1	1	1	1	3	3	**3**
2		2	2	3	3	3
3			3	3	3	3
4				4	4	5
5					5	5
6						6

$S_{i,j}$

i \ j	1	2	3	4	5	6
1	1	1	1	3	3	3
2		2	2	3	3	3
3			3	3	3	3
4				4	4	5
5					5	5
6						6



$((A_1\ (A_2\ A_3))\ ((A_4\ A_5)\ A_6))$