HW4

1)

A1: 10x20
A2: 20x25
A3: 25x15
A4: 15x10
A5: 10x30
A6: 30x12

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

m[1,3]

$(A_1 \; A_2) \; A_3$

10 · 20 · 25 · 15

8,750

$A_1 \; (A_2 \; A_3)$

10 · 20 · 25 · 6

10,500

m[2,4]

$(A_2 \cdot A_3) \; A_4$

20 · 25 · 15 · 10

10,500

$A_2 \; (A_3 \; A_4)$

20 · 25 · 15 · 10

8,750

m[3,5]

$(A_3 \; A_4) \; A_5$

25 · 15 · 15 · 10 · 10 · 30

11,250

$A_3 \; (A_4 \; A_5)$

25 · 15 · 15 · 10 · 10 · 30

15,750

m	1	2	3	4	5	6
1	0	5000	8,750	10,250	13,250	15,050
2		0	7,500	8,750	14,750	14,750
3			0	3,750	11,250	9,900
4				0	4,500	5,400
5					0	3,600
6						0

s	1	2	3	4	5	6
1		1	2	3	4	4
2			2	3	4	4
3				3	4	3
4					4	4
5						5
6						

m[4, 6]

$(A_4 \; A_5) \; A_6$

15 10 10 30 30 12

9900

$A_4 \; (A_5 \; A_6)$

15 10 10 30 30 12

5,400

m[1, 4]

$A_1 \; (A_2 \; A_3 \; A_4)$ + 8750

10 20 20 25 25 15 15 10

= 2000 + 8750

10,750

$(A_1 \; A_2) \; (A_3 \; A_4)$

10 20 20 25 25 15 15 10

= 2500 + 5000 + 3750

11,250

$(A_1 \; A_2 \; A_3) \; A_4$

10 20 20 25 25 15 15 10 + 8750

1500 + 8750 = 10,250

m[3, 6]

$A_3 \; (A_4 \; A_5 \; A_6)$

25 15 15 10 10 30 30 12 5400

9400

$(A_3 \; A_4) \; (A_5 \; A_6)$

25 15 15 10 10 30 30 12

10,350

m[2, 5]

$A_2 \; (A_3 \; A_4 \; A_5)$ + 11,250

20 25 25 15 15 10 10 30

26,250

15000

$(A_2 \; A_3)$

20 25 25 15

3750 + 3600

21,000

$(A_1 \; A_5)$

15 10 10 30 + 7500 + 48

9000

$(A_3 \; A_4 \; A_5) \; A_6$

25 15 15 10 10 30 30 12 11,250

20,250

$(A_2 \; A_3 \; A_4)$

20 25 25 15 15 10

14,750

A_0

10 30 5 + 6750

6,900

m[1,5]

A_1 $(A_2$ A_3 A_4 $A_5)$ + 14,750

10 20 20 30 (6,000)

20,750

$(A_1$ $A_2)$ $(A_3$ A_4 $A_5)$ + 5000 + 11,250

10 25 25 30 (7,500)

23,750

$(A_1$ A_2 $A_3)$ $(A_4$ $A_5)$ 30 + 8,750 + 4500

10 15 15 (4500)

17,750

$(A_1$ A_2 A_3 $A_4)$ A_5 30 + 10,250

10 10 10 3,000

13,250

M[2,6]

$A_2(A_3\ A_4\ A_5\ A_6)$ (20, 25, 25)

15,900 + 9400 (4,000) (12)

$(A_2\ A_3)(A_4\ A_5\ A_6)$ (20, 15, 15)

16,500 + 7500 + 5400 (3,600) (12)

$(A_2\ A_3\ A_4)(A_5\ A_6)$ (20, 10, 10)

14,750 + 8750 + 3600 (2,400) (12)

$(A_2\ A_3\ A_4\ A_5)A_6$ (20, 30, 30)

21,950 + 14,750 (7200) (12)

M[1,6]

$A_1(A_2\ A_3\ A_4\ A_5\ A_6)$ (10, 20, 20)

17,150 + 14750 (2,400) (12)

$(A_1\ A_2)(A_3\ A_4\ A_5\ A_6)$ (10, 25, 25)

17,900 + 9400 (3000) (12)

$(A_1\ A_2\ A_3)(A_4\ A_5\ A_6)$ (10, 15, 15)

15,950 + 8750 + 5400 (1800) (12)

$(A_1\ A_2\ A_3\ A_4)(A_5\ A_6)$ (10, 10, 10)

15,050 + 10,250 + 3600 (1200) (12)

$(A_1\ A_2\ A_3\ A_4\ A_5)A_6$ (10, 30, 30)

16,850 + 13250 (3600) (12)