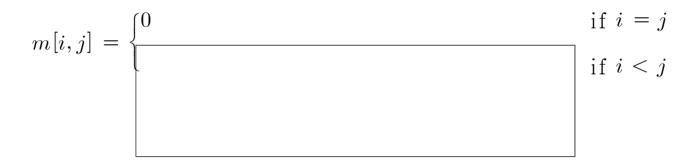# Review 8-4

1. The minimum number of scalar multiplications for computing $A_i A_{i+1}...A_j$, denoted by $m[i, j]$, is as follows. Fill in the blank.

$$m[i, j] = \begin{cases} 0 & \text{if } i = j \\ & \text{if } i < j \end{cases}$$

2. Compute $m[2, 5]$ and $s[2, 5]$ in the following example.

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

m

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

s

matrix dimension	
A_1	30 × 35
A_2	35 × 15
A_3	15 × 5
A_4	5 × 10
A_5	10 × 20
A_6	20 × 25