

M_{ij}

j

i

5	5	8	12				
	1	7	6				
		7	7	15			
			5	10	14		
				10	10	17	
					9	9	16
						7	8
							8

$$\begin{aligned}
 M[1, 3] &= \max \left\{ 5 + \min \left\{ M[3, 3], M[2, 2] \right\}, \right. \\
 &\quad \left. 7 + \min \left\{ M[2, 2], M[1, 1] \right\} \right\} \\
 &= 8
 \end{aligned}$$

$$\begin{aligned}
 M[1, 4] &= \max \left\{ 5 + \min \left\{ M[3, 4], M[2, 3] \right\}, \right. \\
 &\quad \left. 5 + \min \left\{ M[2, 3], M[1, 2] \right\} \right\} \\
 &= 12
 \end{aligned}$$

M_{ij}

j

5	5	8	12	16	22	22	30
	1	7	6	17	15	25	23
		7	7	15	17	21	25
			10	14	17	24	
			10	10	17	18	
				9	9	16	
					7	8	
						8	

i

5	5	8	12				
	1	7	6				
		7	7	15			
			5	10	14		
				10	10		
					9	9	16
						7	8
							8

$$M[1,3] = \max\{5 + \min\{M[3,3], M[2,2]\}, 7 + \min\{M[3,2], M[1,1]\}\}$$

$$= 8$$

$$M[1,4] = \max\{5 + \min\{M[3,4], M[2,3]\}, 5 + \min\{M[2,3], M[1,2]\}\}$$

$$= 12$$

$$M[1,5] = \max\{5 + \min\{M[3,5], M[2,4]\}, 10 + \min\{M[2,4], M[1,3]\}\} = 16$$

$$M[1,6] = \max\{5 + \min\{M[2,5], M[3,6]\}, 9 + \min\{M[2,5], M[1,4]\}\} = 22$$

$$M[1,7] = 22 \quad M[1,8] = 30$$

~~53~~

8531

5 1 7 5 10 9 7 8

↑ ↑ ↑ ↑

Alice 8 5 10 7

Bob 7 9 5 ~~8~~ 1

M_{ij}

i

$$M[1,3] = \max \{ 5 + \min \{ M[3,3], M[2,2] \}, 7 + \min \{ M[2,2], M[1,1] \} \}$$

$$= 8$$

$$M[1,4] = \max \{ 5 + \min \{ M[3,4], M[2,3] \}, 5 + \min \{ M[2,3], M[1,2] \} \}$$

$$= 12$$

$$M[1,5] = \max \{ 5 + \min \{ M[3,5], M[2,4] \}, 10 + \min \{ M[2,4], M[1,3] \} \} = 16$$

$$M[1,6] = \max \{ 5 + \min \{ M[2,5], M[3,6] \}, 7 + \min \{ M[2,5], M[1,4] \} \} = 22$$

$$M[1,7] = 22 \quad M[1,8] = 30$$

8, 5, 10
7, 9, 5, 7

a:

	0	5	10	15	20	25	30	35	40	45	50	55	60
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	100	100	100	100	100	100	100	100	100
2	0	0	20	20	100	100	120	120	120	120	120	120	120
3	0	30	30	50	100	130	130	150	150	150	150	150	150
4	0	30	30	50	100	130	130	150	160	190	190	210	260
5	0	30	30	50	100	130	130	150	160	190	190	220	260

$$S = \left\{ \overset{1}{(100, 20)}, \overset{2}{(20, 10)}, \overset{3}{(30, 5)}, \overset{4}{(160, 40)}, \overset{5}{(90, 30)} \right\}$$

$\uparrow \quad \uparrow \quad \uparrow \quad \uparrow \quad \uparrow$

$$W = 60.$$

\therefore maximum value = 260 \$

b:

	0	5	10	15	20	25	30	35	40	45	50	55	60
0	0	0	0	0	0	0	0	0	0	0	0	0	0
①	0	0	0	0	100	100	100	100	100	100	100	100	100
2	0	0	20	20	100	100	120	120	120	120	120	120	120
3	0	30	30	50	100	130	130	150	150	150	150	150	150
④	0	30	30	50	100	130	130	150	160	190	190	210	260
5	0	30	30	50	100	130	130	150	160	190	190	220	260

item 1, item 4.

