

1. DP table

$i \backslash w$	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
2	0	3	3	7	10	10	10	10	10	10	10	10	10	10	10	10
3	0	3	3	7	10	13	13	17	20	20	20	20	20	20	20	20
4	0	3	3	7	10	13	15	17	20	22	25	25	29	32	32	32
5	0	3	3	7	10	13	15	17	17	22	25	25	29	32	32	34
6	0	3	3	7	10	13	15	17	17	22	25	25	29	32	32	34
7	0	3	3	7	10	13	15	17	17	22	25	25	29	32	32	34

2. DP table

$i \backslash w$	0	1	...	$w-1$	w
0					
1					

first row

second row

we just need 2 rows. the first row is the $(i-1)$ row in $c1$
 we can use the first row to calculate the i row and put the result in the second row. when finishing, put the second row into the first row and calculate next row.

space: $O(2w) = O(w)$

runtime: $O(2Nw) = O(Nw)$