1   (1)

2   (1,1)

3   (1,1,1)   (3)

4   (1,1,1,1)   (3,1)   (1,3)

5   (1,1,1,1,1), (3,1,1)×3   (5)

1 →

1 →

2 →

3

5 ×

and so on

eg [1,3,5] target = 6

$$i = 1 \qquad J = 0 \quad num[J] = 1$$

$$dp[1] = dp[1] + dp[0]$$
$$dp[1] = dp[1] + 1 = 1$$
$$\qquad \quad 0$$

$$i = 1 \qquad j = 1 \quad num[J] = 3$$
$$\qquad \qquad \qquad \qquad \qquad brk$$

$$i = 2 \qquad J = 0 \quad num[J] = 1$$

$$dp[2] = dp[2] + dp[1]$$
$$= dp[2] + 1 = 1$$

$$i = 2 \qquad J = 1 \quad num[J] = 3$$
$$\qquad \qquad \qquad \qquad \qquad brk$$

$$i = 3 \qquad J = 0 \quad num[J] = 1$$

$$dp[3] = dp[3] + dp[2]$$
$$dp[3] = 0 + 1 = 1$$

$$i = 3 \qquad J = 1 \quad num[J] = 3$$

$$dp[3] = dp[3] + dp[0]$$
$$\qquad \quad 1 + 1 = 2$$

$$i = 3 \qquad j = 2 \quad num[J] = 5$$
$$\qquad \qquad \qquad \qquad \qquad brk$$

$i = 4$ $\qquad$ $j = 0$ $\qquad$ num $[j] = 1$

$dp[4] = dp[4] + dp[4-1]$ $\quad \nwarrow dp[3]$

$dp[4] = \quad\quad 0 + 2 = 2$

$i = 4$ $\qquad$ $j = 1$ $\qquad$ num $[j] = 3$

$dp[4] = dp[4] + dp[4-3]$

$= \quad\quad 2 + 1$

$dp[4] = 3$

and so on until we reach

$dp[target]$