

Backtracking

$$\begin{aligned} \text{OPT}[3,6] &= \max\{ \\ &\quad \text{OPT}[2,6] (=4), \\ &\quad \text{OPT}[2,3] + V_3 (=2+3) \} \\ &= 5 \end{aligned}$$

Decision: Select item 3

| | W = 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|-----|-------|---|---|---|---|---|---|
| i=3 | 0 | 0 | 2 | 3 | 4 | 5 | 5 |
| i=2 | 0 | 0 | 2 | 2 | 4 | 4 | 4 |
| i=1 | 0 | 0 | 2 | 2 | 2 | 2 | 2 |
| i=0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |