(2)

$$KS[i,j] \begin{cases} 0, \text{if } i = j = 0 \\ \max(KS[i-1, j], KS[j - w[i]] + v[i]), \text{else} \end{cases}$$

```
KS-0-1-DP (w, v, M) {
  for i = 0 to w.length   //Llenar array con 0's
      KS[i] = 0

  temp = Make a copy of KS

  for i = 1 to w.length {
    for j = 1 to M {
      if j >= w[i]
        KS[j] = max = { temp[j], temp[j - w[i]] +
                        v[i] }

                  // Verifica si conviene tomar
                     el item

    temp = Make a copy of KS
  }
  return (KS[w.length])
}
```

	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
#1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
#2	0	0	0	1	1	1	1	1	7	7	7	8	8	8	8	8
#3	0	0	0	1	1	1	8	8	8	9	9	9	9	9	15	15
#4	0	0	4	4	4	5	8	8	12	12	12	13	13	13	15	15
#5	0	2	4	6	6	6	8	10	12	14	14	14	15	15	15	17
#6	0	2	4	6	6	6	8	10	12	14	14	14	15	15	15	17
#7	0	2	4	6	6	6	8	10	12	14	14	14	15	15	15	17