

Midterm 2 S21

Input: We are given n items with positive weights $w_1, \dots, w_n \geq 0$, as well as target threshold $W \geq 0$.

Output: The number of subsequences w_{i_1}, \dots, w_{i_k} such that:

$$\sum_{j=1}^k w_{i_j} = W$$

The precise subproblem for this problem would consider the sub-list, such that:

From $T[i, j]$

i = starting index

j = ending index

From this we can find our precise subproblem:

For each starting index i and ending index j , find the number of subsequences in the sub-list of input $A[i, \dots, j]$ that will add to a weight of W .

From the above this will be our precise subproblem.