

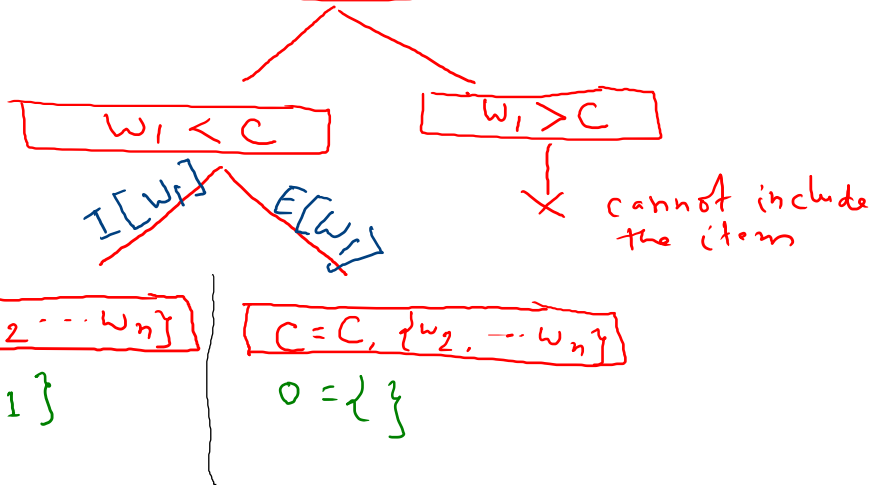
GOAL: Find max profit using pascal include and exclude principle

DOUBLE-COUNTING CHOICE DIAGRAM

will explore whole 2nd

$$n C_k = \underbrace{n-1 C_{k-1}}_{\text{include}} + \underbrace{n-1 C_k}_{\text{exclude}}$$

$$I/O = [C, \{w_1, w_2, \dots, w_n\}] \quad O = \{\} \max(\text{profit})$$



Variables: capacity, and available weights

no base condition will be on capacity and available weights.

In general, we pick minimum valid input as base condition so here base condition will come when code run time will hit the condition of : ① Zero available capacity and ② no available weights