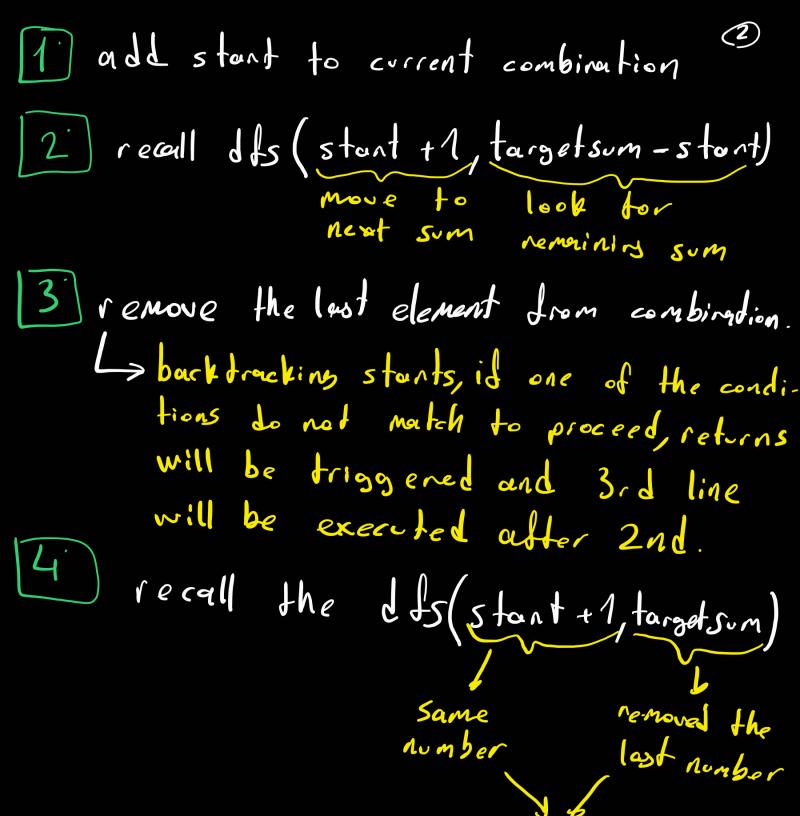
216. Combination Sum III # recursive + backtracking approach dfs (stort, targetsum) -> furction check for a constration is valid and the elements are present target sum = 0 (no more number needed) True combination > return Check again Stant > 9 (can't add more) Stant > 9 (can't use greater than 9) Stant > target sum (current num exceeds the sum) True return if none of the returns triggered



looking for a

new contination

$$\begin{array}{l}
N = 7, k = 3 \\
d d s (1,7) \longrightarrow comb = [1] \\
12 \\
d d s (2,6) \longrightarrow comb = [1,2] \\
d d s (3,4) \longrightarrow comb = [1,2,3] \\
d d s (4,1) second is comb = [1,2,3] \\
d d s (4,1) second is comb = [1,2] \\
d d s (4,4) \longrightarrow comb = [1,2,4] \\
d d s (4,4) \longrightarrow comb = [1,2,4] \\
d d s (4,4) \longrightarrow comb = [1,2,4] \\
d d s (4,4) \longrightarrow comb = [1,2,4] \\
d d s (5,0) \longrightarrow dist id \longrightarrow combination added to result$$