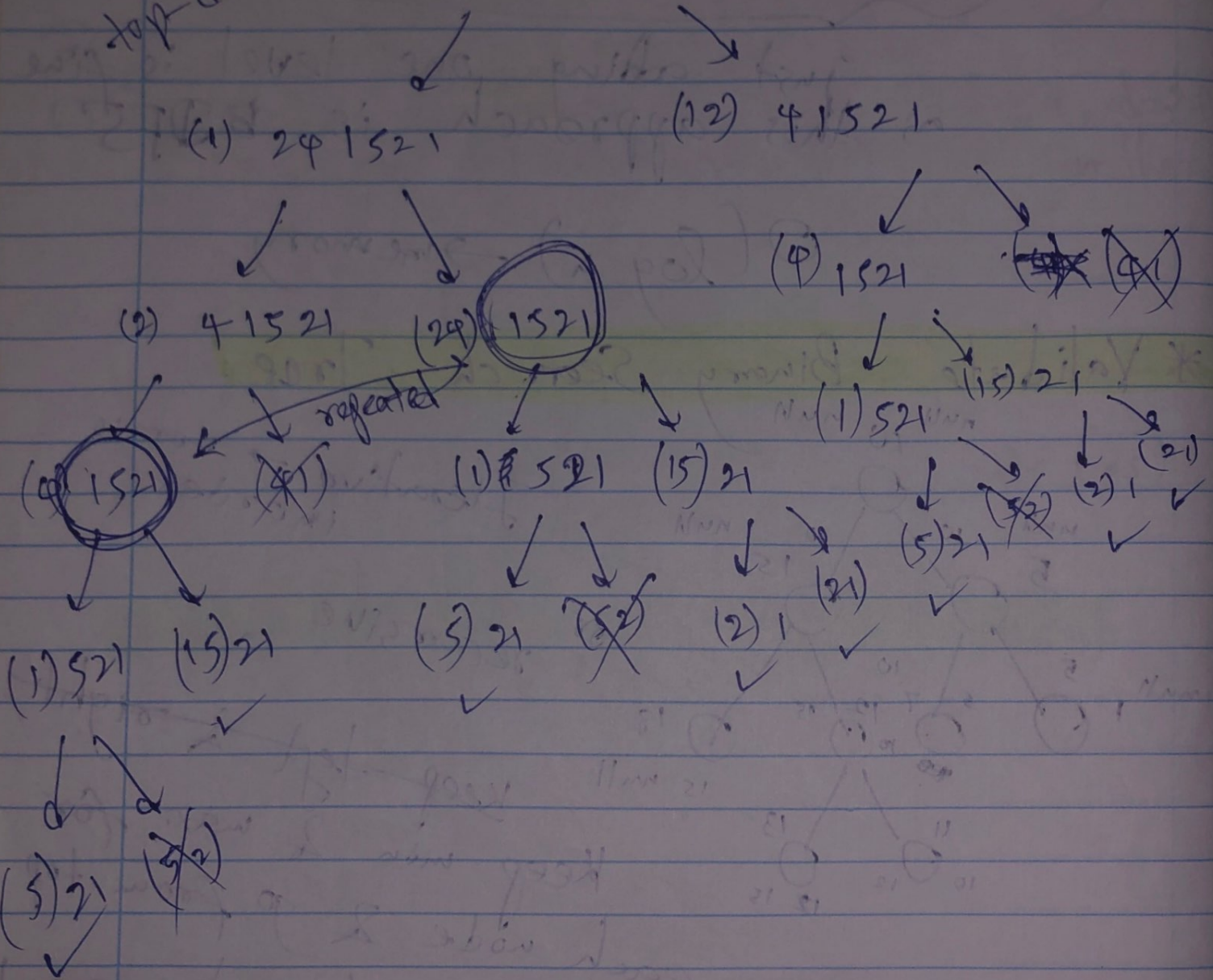


* Decode Ways

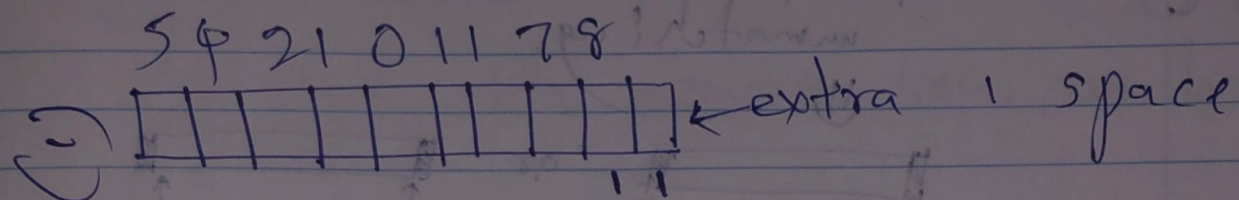
top-down 1 2 4 1 5 2 1



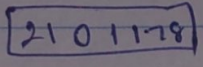
instead of using backtracking, we can use optimized version; memorizing # of ways upto that index

can use map with top down.

or array with bottom up. (or can use just 2 variables)



if index value = "0" then 0 ways

else  $\text{substring}(\text{curr}, \text{next}+1)$ ≤ 26
next value

then take, ~~curr~~

$$\text{arr}[\text{curr}] = \text{arr}[\text{curr}+1] + \text{arr}[\text{curr}+2]$$

$$+ \text{arr}[\text{curr}+2]$$

$$\text{else } \text{arr}[\text{curr}] = \text{arr}[\text{curr}+1]$$

memorization is the key thing.

if is used.