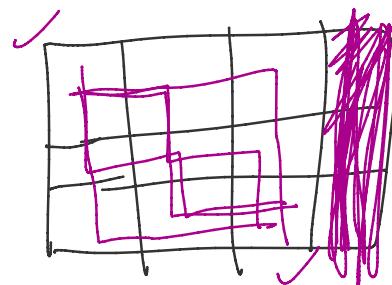
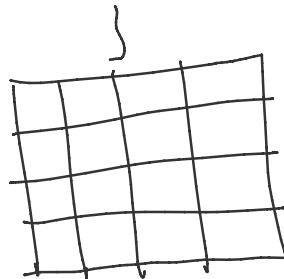
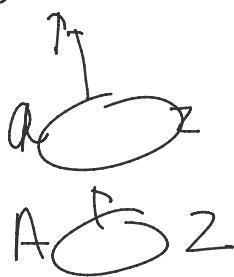
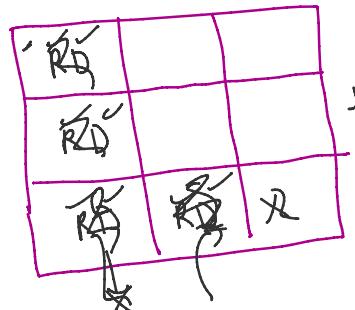
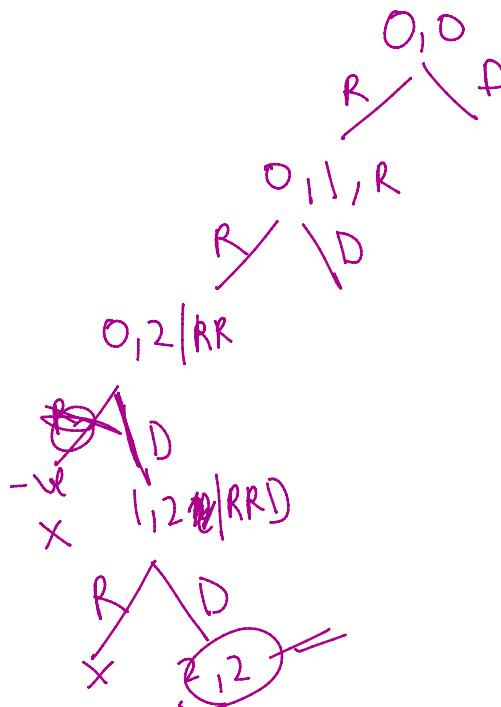


char. {

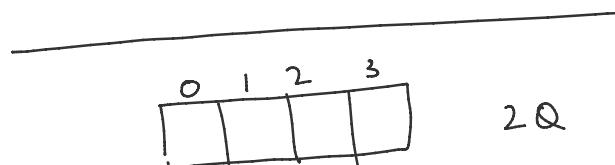


R R D D

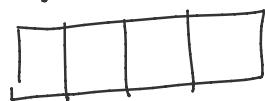


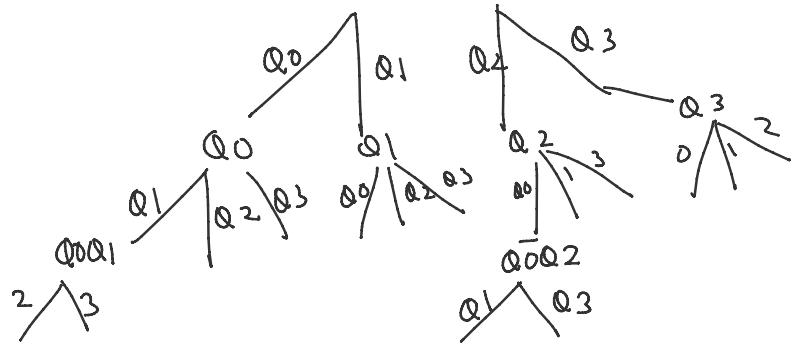
RRDD
RD RD
R D D R

DR R D
DR D R
D D R R



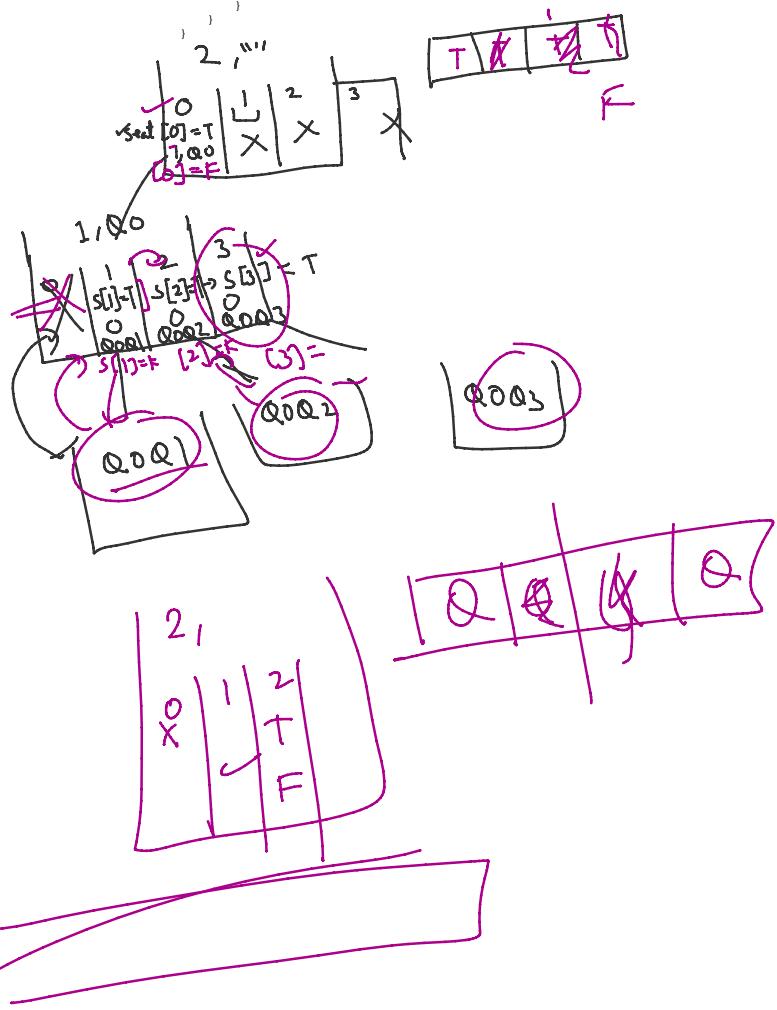
Q0 Q1	Q1 Q0	Q2 Q0	Q3 Q0
Q0 Q2	Q1 Q2	Q2 Q1	Q3 Q1
Q0 Q3	Q1 Q3	Q2 Q3	Q3 Q2



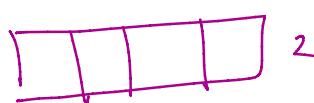


```
public static void perm(int n, String ans, int total_seats, boolean[] placed) {
```

```
    if (n == 0) {
        System.out.println(ans);
        return;
    }
    for (int seat = 0; seat < total_seats; seat++) {
        if (placed[seat] == false) {
            placed[seat] = true;
            perm(n - 1, ans + "Q" + seat, total_seats, placed);
        }
    }
}
```

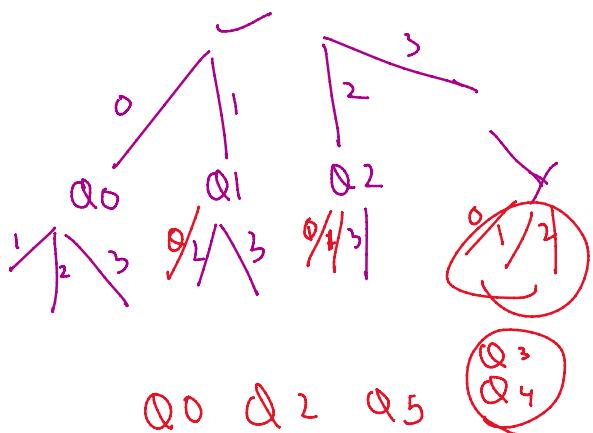


Combintⁿ



$Q_0Q_1 | Q_0Q_2 | Q_1Q_2 | Q_1Q_3 | Q_2Q_3$

$\overbrace{Q_4 \\ Q_0 Q_2 \\ Q_0 Q_5}^{\text{Q1 Q2}} \quad | \quad \overbrace{Q_1 Q_5}^{\text{Q1 Q5}}$

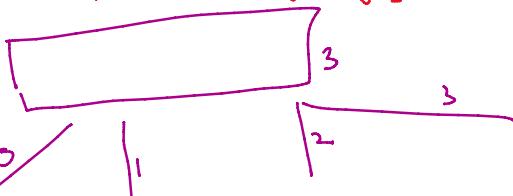


$Q_0 \quad Q_2 \quad Q_5$

$Q_3 \quad Q_4$

$6 \rightarrow \text{last}$

$\overbrace{Q_0 \quad Q_2}^{\text{Q0 Q2}} \quad \cancel{\overbrace{Q_3 \quad Q_5}^{\text{Q3 Q5}}}$



Q_0

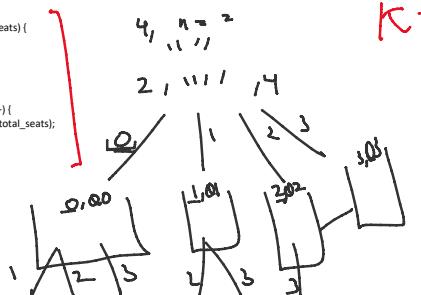
Q_2

Q_5

$i \rightarrow i + m$
 $j \rightarrow j + 1$

$k \rightarrow j + 1$

```
public static void comb(int n, int last, String ans, int total_seats) {
    if (n == 0) {
        System.out.println(ans);
        return;
    }
    for (int seat = last; seat < total_seats; seat++) {
        comb(n - 1, seat, ans + "Q" + seat, total_seats);
    }
}
```



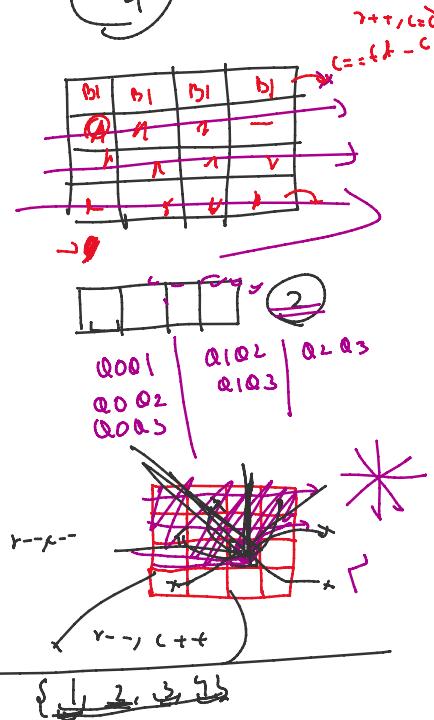
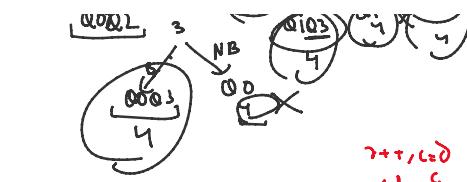
$Q_1, \quad n = 2$

$Q_0 \quad Q_1$

$Q_0 \quad Q_2$

$Q_0 \quad Q_3$

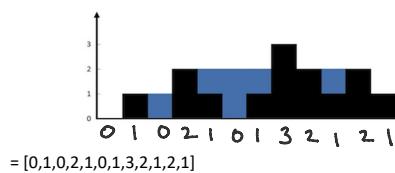
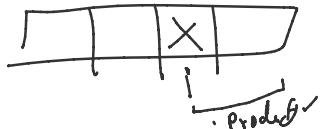




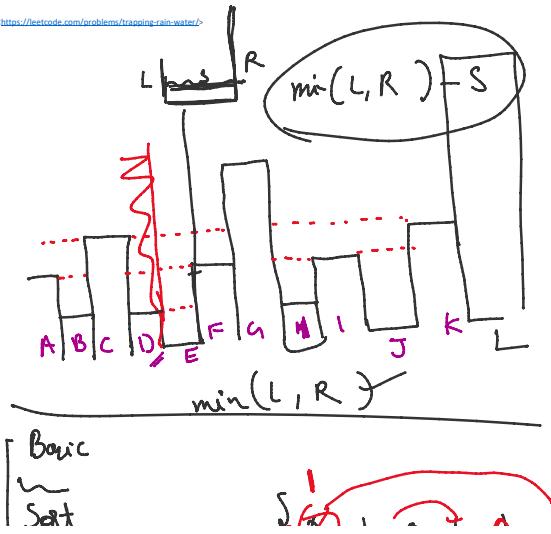
$\rightarrow i$

$0 \leq i \leq l$

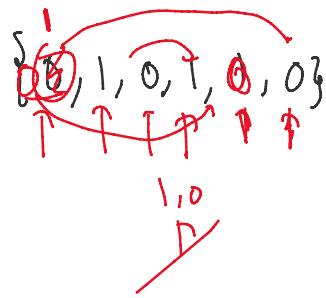
{ 27, 12, 8, 6 }



From <https://leetcode.com/problems/trapping-rain-water/>

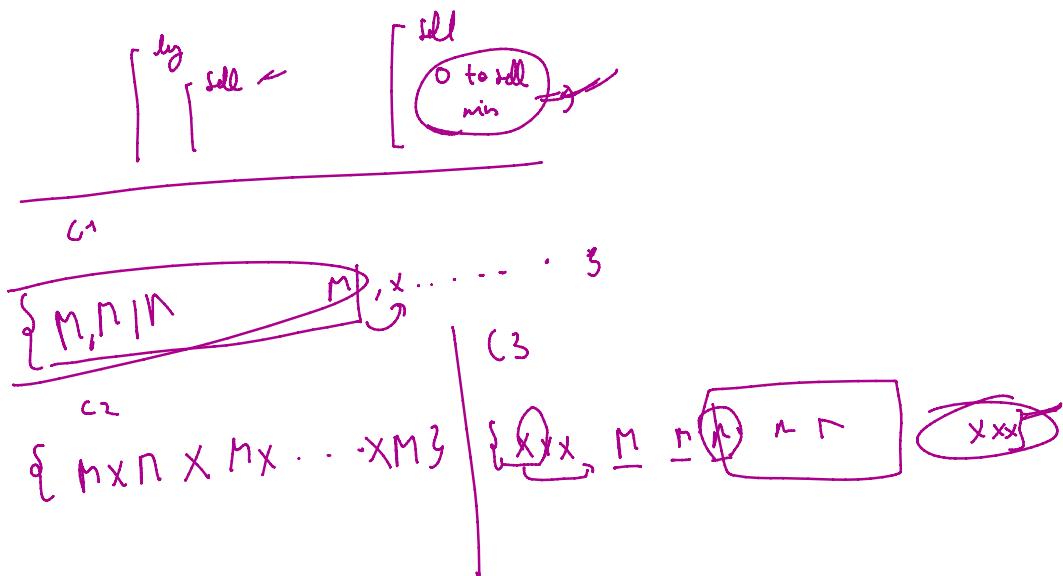


Basic
Sort



$\{1, 3, 0, 2, 5, 0, 7, 2, 0, 0, 15\}$

$\{5, 4, 2000, 0, 1, 100\}$.



$[2, 2, 1, 1, 2, 2]$

From <https://leetcode.com/problems/majority-element/>

$\{2, 2, 2, 10, 2, 5, 2, 2\}$

$\{2, 2, 1, 2, 1, 2, 1, 2, 2\}$

5
4
3
2
1
0

From <https://hack.codingblocks.com/admin/contents/61/problem?step=7>

$\{1, 2, 3, 4, 5\}$

1

0 $\{6, 3, 5, 2, 9\}$

$\{12, 6, 10, 14, 18\}$

$$^3 \{22, 20, 28, 26, 24\} -$$

$$\begin{array}{c} \{1, 2, 3, 7\} \\ \{a, b, c, d, e\} \\ \hline 2(a+b+c+d+e) \end{array}$$

nums = [8,12,6],
target = [2,14,10]

From <<https://leetcode.com/problems/minimum-number-of-operations-to-make-arrays-similar/>>

III 1 2 3 4	DDD 4 3 2 1
II 1 2 3	DD 3 2 1
I 2 1	II 1 2 3 4
DDD 4 3 2 1	

I ↴
1 2

DD I I I X
3 2 1 4 5

DD | DDI
3 2 1 | 3 2 1 5

DD I I D D D X
3 2 1 4 8 7 6 5

D , DD , DDD

DDI , DDI

DDI D D

DDI D I || DIDI
IDID