```cpp
int sol1(vector<int> nums){
    int n = nums.size();

    int left = 0, right = n-1;

    while (left < right ){
        int mid = (left + right) / 2;

        if(nums[mid] >= nums[mid+1]){
            right = mid;
        }else{
            left = mid+1;
        }
    }

    return left;
}
```

```cpp
int sol2(vector<int> nums){

    int answer = -1;

    int low = 0;
    int high = nums.size() - 1;

    while (low <= high) {
        int mid = low + (high - low)/2;
        if (nums[mid] < nums[mid -1]) {
            high = mid - 1;
        } else if (mid < nums.size() -1 && nums[mid] < nums[mid + 1] ) {
            low = mid + 1;
        } else {
            return mid;
        }
    }
}
```

- mid formula
- while condition
- right - left transition

29 19 17 31 3 57 84 7 25

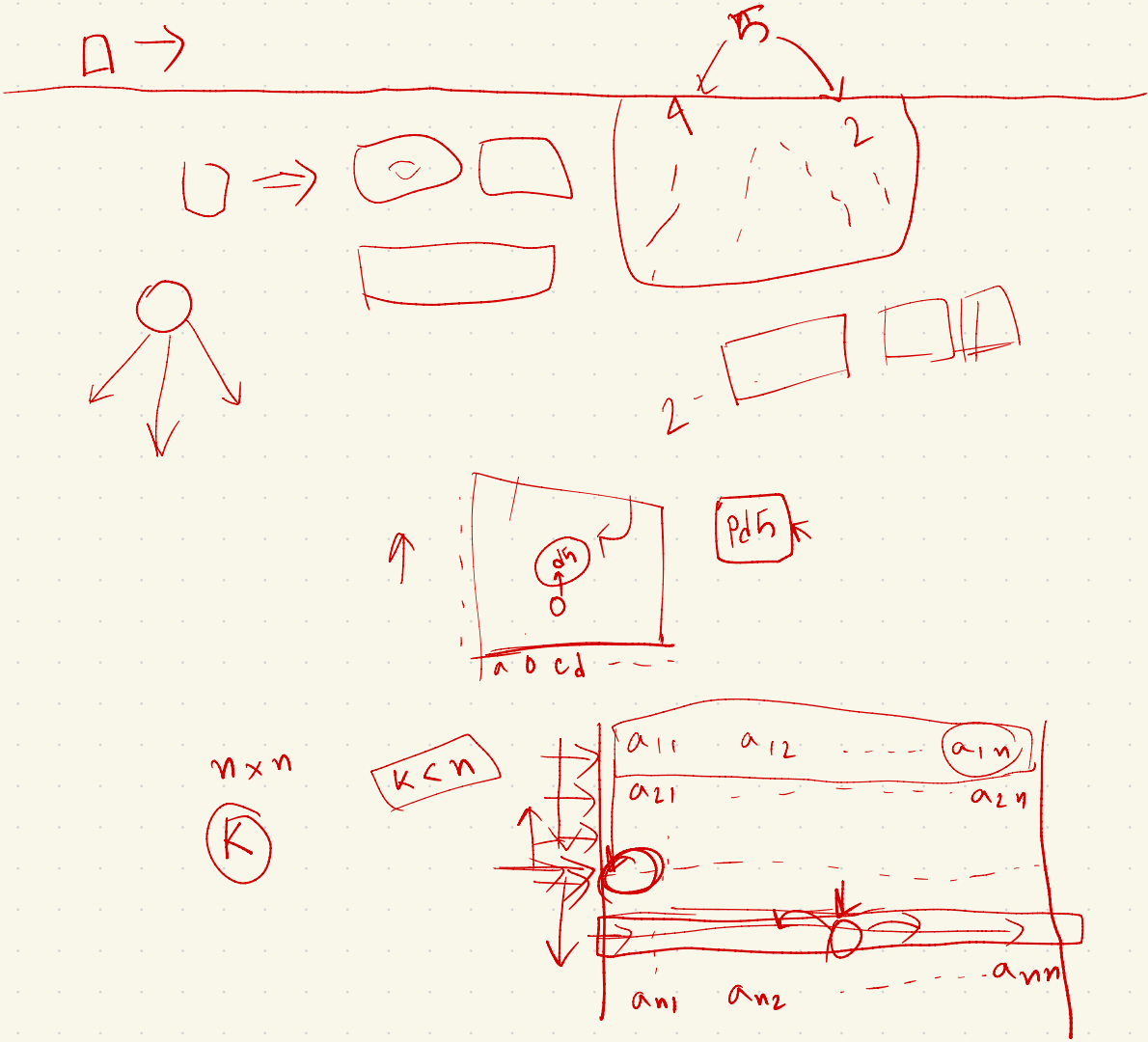
l	r	m	A
0	8	4	-1 ~~null~~

shopping mall

every minute

$f(n) = f(n-1) + f(n-3)$

$\Rightarrow q + r = y$


pdf
a b c d
n × n
K
k < n
a_{11} a_{12} a_{1n}
a_{21} a_{2n}
a_{n1} a_{n2} a_{nn}