手写快读，快写

```
int read() {
        int res = 0;
        char c = getchar();
        while(!isdigit(c)) c = getchar();
        while(isdigit(c)) res = (res << 1) + (res << 3) + c - 48, c = getchar();
        return res;
}
void printi(int x) {
        if(x / 10) printi(x / 10);
        putchar(x % 10 + '0');
}
```

(a/b)%mod

```
(a/b)%mod=(a*ksm(b,mod-2))%mod
```

离散化

```
std::vector<int> tmp(arr);  // tmp 是 arr 的一个副本
std::sort(tmp.begin(), tmp.end());
tmp.erase(std::unique(tmp.begin(), tmp.end()), tmp.end());
for (int i = 0; i < n; ++i)
  arr[i] = std::lower_bound(tmp.begin(), tmp.end(), arr[i]) - tmp.begin();
```

head

```cpp
#include<bits/stdc++.h>
using namespace std;
#define int long long
#define ld long double
#define endl "\n"
#define fr(i,n) for(int i=1;i<=n;i++)
#define vec vector<long long>
#define lowbit(x) ((x)&(-x))
#define vecp vector<pair<int,int>>
const int N=1e6+5;
const int MOD=998244353;
const int INF=1e18;
int n;
int gcd(int a, int b) {
    return b ? gcd(b, a % b) : a;
}
long long ksm(long long a, long long b) {
    long long res = 1;
    while(b) {
        if(b & 1) res = res * a % MOD;
        a = a * a % MOD;
        b >>= 1;
    }
    return res;
}
inline void Add(int &x,int y){((x+=y)>=MOD)?(x-=MOD):0;}
int Mul(int x,int y){return (x*y+MOD)%MOD;}
void init(){
}
void solve(){

}
signed main(){
    ios::sync_with_stdio(false);
    cin.tie(0);
    cout.tie(0);
    int t=1;
    cin>>t;
    while(t--){
        solve();
    }
    return 0;
}
```

重写结构体运算符

```cpp
struct node{
    int a,b;
    bool operator < (const node& x) const{
```

```
        return a>x.a;
    }
};
```