

```

1
2 // By AmmarDab3an
3
4 #include "bits/stdc++.h"
5
6 using namespace std;
7
8 #define int int64_t
9 #define ll int64_t
10
11 // typedef unsigned int      uint;
12 // typedef long long int     ll;
13 // typedef unsigned long long ull;
14 typedef pair<int, int>      pii;
15 typedef pair<ll, ll>       pll;
16 typedef pair<int, pii>     iii;
17 typedef pair<ll, pll>      lll;
18 typedef vector<int>        vi;
19 typedef vector<ll>         vl;
20 typedef vector<pii>         vpii;
21 typedef vector<pll>         vpll;
22
23 #define endl '\n'
24 #define fastIO ios_base::sync_with_stdio(0); cin.tie(0); cout.tie(0);
25 #define freopenI freopen("input.txt", "r", stdin);
26 #define freopenO freopen("output.txt", "w", stdout);
27
28 const int INF = 0x3f3f3f3f;
29 const ll INFL = 0x3f3f3f3f3f3f3f3f;
30 const int MOD = 1e9 + 7;
31 const double EPS = 1e-9;
32 const double PI = acos(-1);
33
34 mt19937 rng(chrono::steady_clock::now().time_since_epoch().count());
35
36 int rand(int x, int y) {
37     return uniform_int_distribution<int>(x, y)(rng);
38 }
39
40 int mul(int a, int b) {
41     int ret = (1ll * (a%MOD) * (b%MOD)) % MOD;
42     return (ret+MOD)%MOD;
43 }
44
45 int add(int a, int b) {
46     int ret = (1ll * (a%MOD) + (b%MOD)) % MOD;
47     return (ret+MOD)%MOD;
48 }
49
50 int pow_exp(int n, int p) {
51     if(!p) return 1;
52     if(p&1) return mul(n, pow_exp(n, p-1));
53     int tmp = pow_exp(n, p/2);
54     return mul(tmp, tmp);
55 }
56
57 const int MAX = 2e5 + 10;
58 const int NMAX = 2e5 + 10;
59 const int MMAX = 2e5 + 10;
60 const int LOG_MAX = ceil(log2(double(NMAX)));
61 const int BLOCK = ceil(sqrt(double(NMAX)));
62
63 int32_t main() {
64     fastIO;
65
66     #ifdef LOCAL
67     freopenI;
68     freopenO;
69

```

```
70 #endif
71
72 // freopen("name.in", "r", stdin);
73
74 int t; cin >> t; while(t--){
75
76
77 }
78 }
79
```