

CF1100F

区间查询线性基。

```

#include <bits/stdc++.h>
#define maxn 500086
using namespace std;

int n, q, x, y;
int b[maxn][31], pos[maxn][31]; // debug: 数组开小调了一万年

inline void insert(int x, int y){
    int z = y;
    for(int i = 30, j = 1 << 30; j; i--, j >>= 1){
        if(x & j){
            if(!b[y][i]){
                b[y][i] = x, pos[y][i] = z;
                break;
            }else{
                if(z > pos[y][i]) swap(x, b[y][i]), swap(z, pos[y][i]);
                x ^= b[y][i];
            }
        }
    }
}

inline int query(int l, int r){
    int ans = 0;
    for(int i = 30; ~i; i--){
        //printf("%d %d %d--\n", i, b[r][i], pos[r][i]);
        if(pos[r][i] >= l && (ans ^ b[r][i]) > ans) ans ^= b[r][i];
    }
    return ans;
}

int main(){
    scanf("%d", &n);
    for(int i = 1; i <= n; i++){
        //for(int j = 0; j <= 30; j++) b[i][j] = b[i - 1][j], pos[i][j] =
pos[i - 1][j];
        memcpy(b[i], b[i - 1], sizeof(b[i - 1])), memcpy(pos[i], pos[i -
1], sizeof(pos[i - 1]));
        scanf("%d", &x);
        insert(x, i);
    }
    scanf("%d", &q);
    while(q--){
        scanf("%d%d", &x, &y);
        printf("%d\n", query(x, y));
    }
}

```

```
}  
}
```

CF461B

CF455D

CF319C

CF383E

CF1045G

CF797D

CF979D

CF1093G



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