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Lab: 3

```
#include <bits/stdc++.h>
#define ll long long int
#define MAX_PRIME 100000
using namespace std;

string intToBinaryRev(ll n){
    string s="";
    while (n){
        s = (char)(n%2 + '0')+s;
        n/=2;
    }
    return s;
}

vector<ll> extendedEuclidean(ll a, ll n){
    ll n_save = n;
    ll r1=n, r2=a;
    ll d1=1, d2=0;
    ll t1=0, t2=1;
    ll q, r, d, t;
    while(r2!=0){
        q=r1/r2;
        r=r1-(r2*q);
        r1=r2;
        r2=r;

        d=d1-(d2*q);
        d1=d2;
        d2=d;
    }
    return {r1, d1, n_save};
}
```


