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PPS-II(Lab-1)

1) Reduce given number to 1

```
#include <iostream>
using namespace std;
int main()
{
    unsigned long int num;
    int count=0;
    cin >> num;

    while(num!=1)
    {
        if(num%2==0)
            num/=2;
        else if(num==3 || num%4==1)
            num-=1;
        else
            num+=1;
        count++;
    }
    cout << count;

    return 0;
}
```

2) Find integer occurring odd number of times

```
#include <iostream>
using namespace std;
int main()
{
    int m,n,odd=0,i=0;
    cin >> m;

    for(;i<m;i++)
    {
        cin >> n;
        odd^=n;
    }
    cout << odd;

    return 0;    }
```

3) Election result

```
#include <iostream>
using namespace std;
int main()
{
    int m,n,v,max=0,a=-1,b=0,vc[101]={};
    cin >> n >> m;

    for(int i=0;i<m;i++)
    {
        cin >> v;
        vc[v]++;
    }
    for(int i=0;i<101;i++)
    {
        if(max<vc[i])
        {
            max=vc[i];
            a=i;
        }
    }
    for(int i=0;i<101;i++)
        if(max==vc[i])
            b++;
    if(b>=2)
        cout << -1;
    else
        cout << a;

    return 0;
}
```