Program :

```cpp
#include <bits/stdc++.h>
using namespace std;

int main()
{
    int q, r1, r2, r, t1 = 0, t2 = 1, t, tmp;
    int s1 = 1, s2 = 0, s, smp;

    cout<<"Enter two numbers: ";
    cin>>r1 >>r2;

    cout << "\nq\t"<< "r1\t"<< "r2\t"<< "r\t"<< "t1\t"<< "t2\t"<< "t\t"<<
"s1\t"<< "s2\t"<< "s\t" << endl;
    cout << "-----------------------------------------------------------
------------"<<endl;
    while (r2 > 0)
    {
        q = r1 / r2;
        r = r1 - q * r2;
        cout << q << "\t" << r1 << "\t" << r2 << "\t" << r << "\t";
        r1 = r2;
        r2 = r;

        t = t1 - q * t2;
        cout << t1 << "\t" << t2 << "\t" << t << "\t";
        t1 = t2;
        t2 = t;
        s = s1 - q * s2;

        cout << s1 << "\t" << s2 << "\t" << s << "\t" << endl;
        smp = s1;
        s1 = s2;
        s2 = s;
    }
    cout << "\t" << r1 << "\t" << r2 <<endl<<endl;

    return 0;
}
```

Output :

```
Enter two numbers: 5004 256

q       r1      r2      r       t1      t2      t       s1      s2      s
-------------------------------------------------------------------------
19      5004    256     140     0       1       -19     1       0       1
1       256     140     116     1       -19     20      0       1       -1
1       140     116     24      -19     20      -39     1       -1      2
4       116     24      20      20      -39     176     -1      2       -9
1       24      20      4       -39     176     -215    2       -9      11
5       20      4       0       176     -215    1251    -9      11      -64
        4       0

PS C:\Users\Idris\Documents\College works\CSS> cd "c:\Users\Idris\Documents\Colleg
lAlgo } ; if ($?) { .\ExtEuclAlgo }
Enter two numbers: 100 23

q       r1      r2      r       t1      t2      t       s1      s2      s
-------------------------------------------------------------------------
4       100     23      8       0       1       -4      1       0       1
2       23      8       7       1       -4      9       0       1       -2
1       8       7       1       -4      9       -13     1       -2      3
7       7       1       0       9       -13     100     -2      3       -23
        1       0

PS C:\Users\Idris\Documents\College works\CSS>
```