**#include**<iostream>

**using** **namespace** std;

**int** **main**()

{

**int** q,n1,n2,r,t1,t2,t;

t1=0;

t2=1;

cout<<"\n\tEnter the first number: ";

cin>>n1;

cout<<"\n\tEnter the second number: ";

cin>>n2;

**int** a=n1;

**int** b=n2;

cout<<"\n\tq n1 n2 r t1 t2 t";

cout<<"\n\t\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<**endl**;

**while**(n1!=1 && n2!=0)

{

q=n1/n2;

r=n1%n2;

t=t1-q\*t2;

cout<<"\t"<<q<<" "<<n1<<" "<<n2<<" "<<r<<" "<<t1<<" "<<t2<<" "<<t<<**endl**;

n1=n2;

n2=r;

t1=t2;

t2=t;

}

cout<<"\t-----------------"<<**endl**;

cout << "\n\tgcd(a, b) = ";

**if**(t1<0)

{

cout<<(t1+a);

}

**else**{

cout<<t1;

}

}

OUTPUT

Enter the first number: 161

Enter the second number: 28

q n1 n2 r t1 t2 t

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5 161 28 21 0 1 -5

1 28 21 7 1 -5 6

3 21 7 0 -5 6 -23

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gcd(a, b) = 6