LAB MANUAL 05

HOME TASKS

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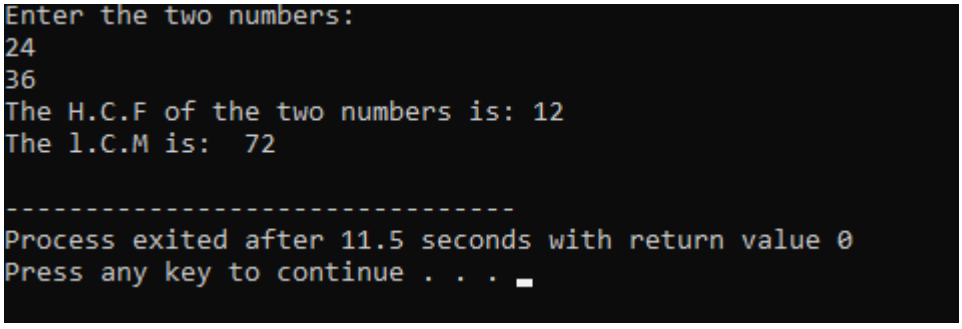
Q01 Write a program in C++ to find LCM of any two numbers using HCF.

CODE:

```
#include<iostream>

using namespace std;

int main() {

   int num1, num2, rem,product,lcm;

   cout<<"Enter the two numbers: "<<endl;

   cin>>num1>>num2;

   product=num1*num2;

   while(num2!=0) {

      rem=num1%num2;

      num1=num2;
```

```
    num2=rem;

  }

  cout<<"The H.C.F of the two numbers is: "<<num1<<endl;

    lcm=product/num1;

    cout<<"The l.C.M is:  "<<lcm<<endl;

    return 0;

    }
```

RESULT:



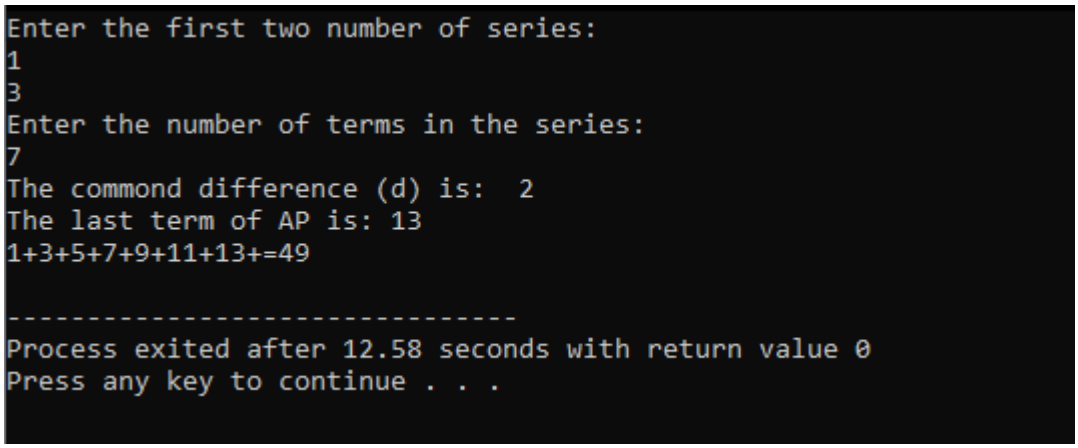
Q02 Write a program in C++ to find out the sum of an Arithmetic progression series.

CODE:

```
#include<iostream>

using namespace std;

int main() {

	int a1,a2,d,n,an,S,series;

	cout<<"Enter the first two number of series: "<<endl;

	cin>>a1>>a2;

	cout<<"Enter the number of terms in the series:
"<<endl;

	cin>>n;

	d=a2-a1;

	an=a1+(n-1)*d;

	cout<<"The commond difference (d) is:  "<<d<<endl;

	cout<<"The last term of AP is: "<<an<<endl;
```

```
            S=(n*(a1+an))/2;




        for(int i=0;i<n;i++){

            series=a1+(i*d);

       cout<<series<<"+";

        }

    cout<<"="<<S<<endl;

        return 0;

}
```

RESULT:



Q03 Write a program in C++ to create a diamond.

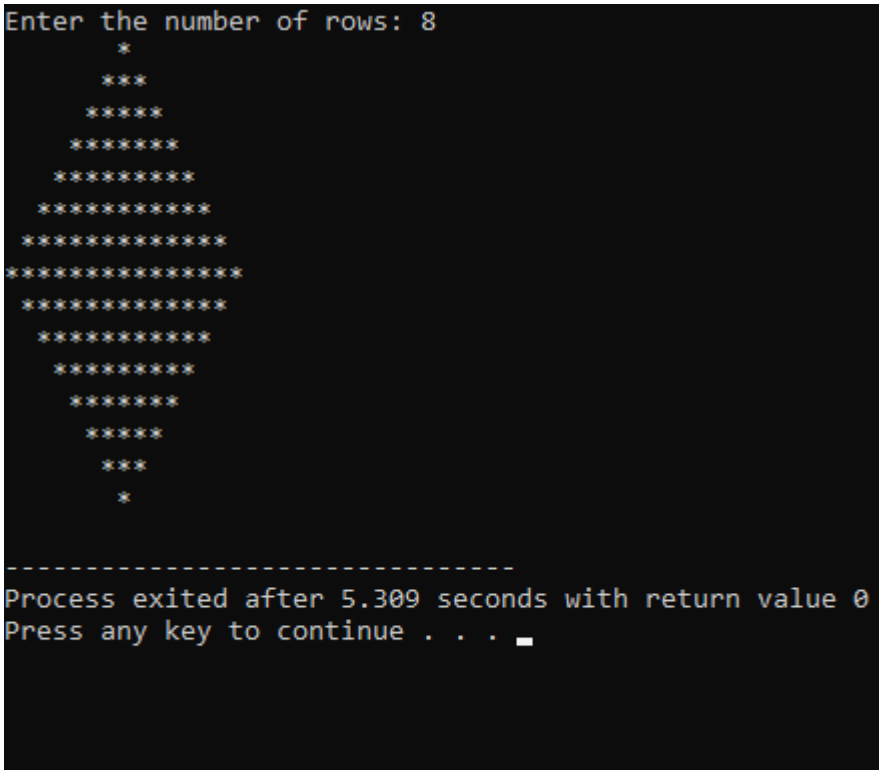
CODE:

```
#include<iostream>

using namespace std;

int main(){

    int n;

    cout<<"Enter the number of rows: ";

    cin>>n;

    for(int l=1;l<=n;l++){
```

```
        for(int s=1;s<=n-l;s++ ){
            cout<<" ";
    }
        for(int a=1;a<=2*l-1;a++){
            cout<<"*";
        }
        cout<<endl;
    }
    for(int l=n-1;l>=1;l--){
        for(int s=1;s<=n-l;s++ ){
            cout<<" ";
    }
        for(int a=1;a<=2*l-1;a++){
            cout<<"*";
```

```
            }

            cout<<endl;

        }

        return 0;

}
```

RESULT:



Q04 Write a program in C++ to convert a decimal number to binary number.

CODE:

```
#include<iostream>

using namespace std;

int main() {

        int number,rem;

        cout<<"Enter the number: ";

        cin>>number;

    while(number > 0) {

       rem=number % 2;

       cout<<rem;

       number/=2;

   }
```

```
    return 0;

}
```

RESULT: