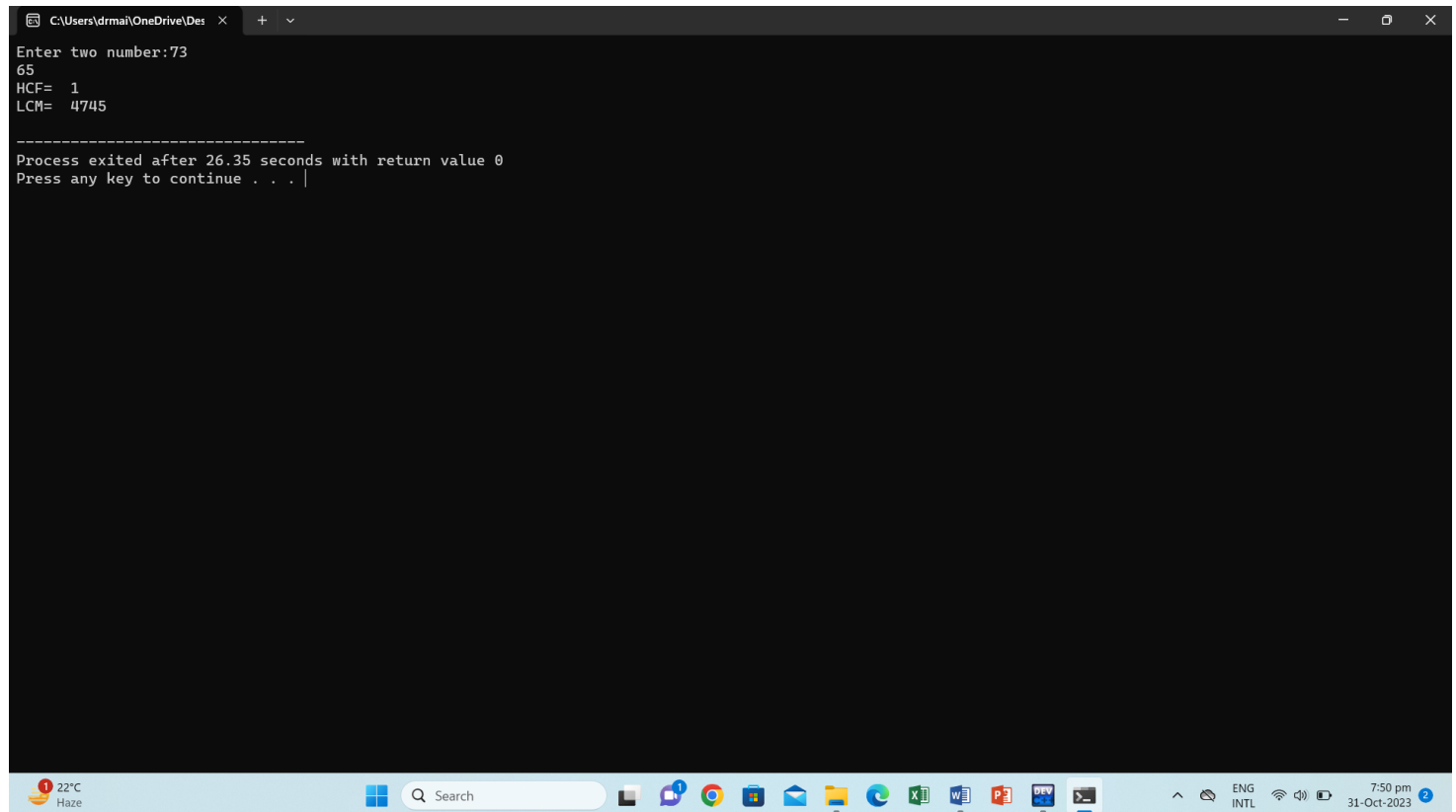


Write a program in C++ to find LCM of any two numbers using HCF.

CODE:

```
#include<iostream>
using namespace std;
int main(){
    int n1,n2,hcf,lcm,x,y,temp;
    cout<<"Enter two number:";    //TAKING INPUT
    cin>>n1>>n2;
    x=n1;
    y=n2;
    while(y!=0){
        temp=y;
        y=x%y;
        x=temp;
    }
    hcf=x;
    lcm=(n1*n2)/hcf;
    cout<<"HCF= "<<hcf<<endl;    //GIVING HCF VALUE
    cout<<"LCM= "<<lcm<<endl;    //GIVING LCM VALUE
}
```

OUTPUT:

A screenshot of a Windows terminal window showing the execution of a C++ program. The window title is "C:\Users\drmai\OneDrive\Des". The input is "73" and "65". The output shows "HCF= 1" and "LCM= 4745". The program exits after 26.35 seconds. The Windows taskbar is visible at the bottom with the date "31-Oct-2023" and time "7:50 pm".

```
C:\Users\drmai\OneDrive\Des
Enter two number:73
65
HCF= 1
LCM= 4745

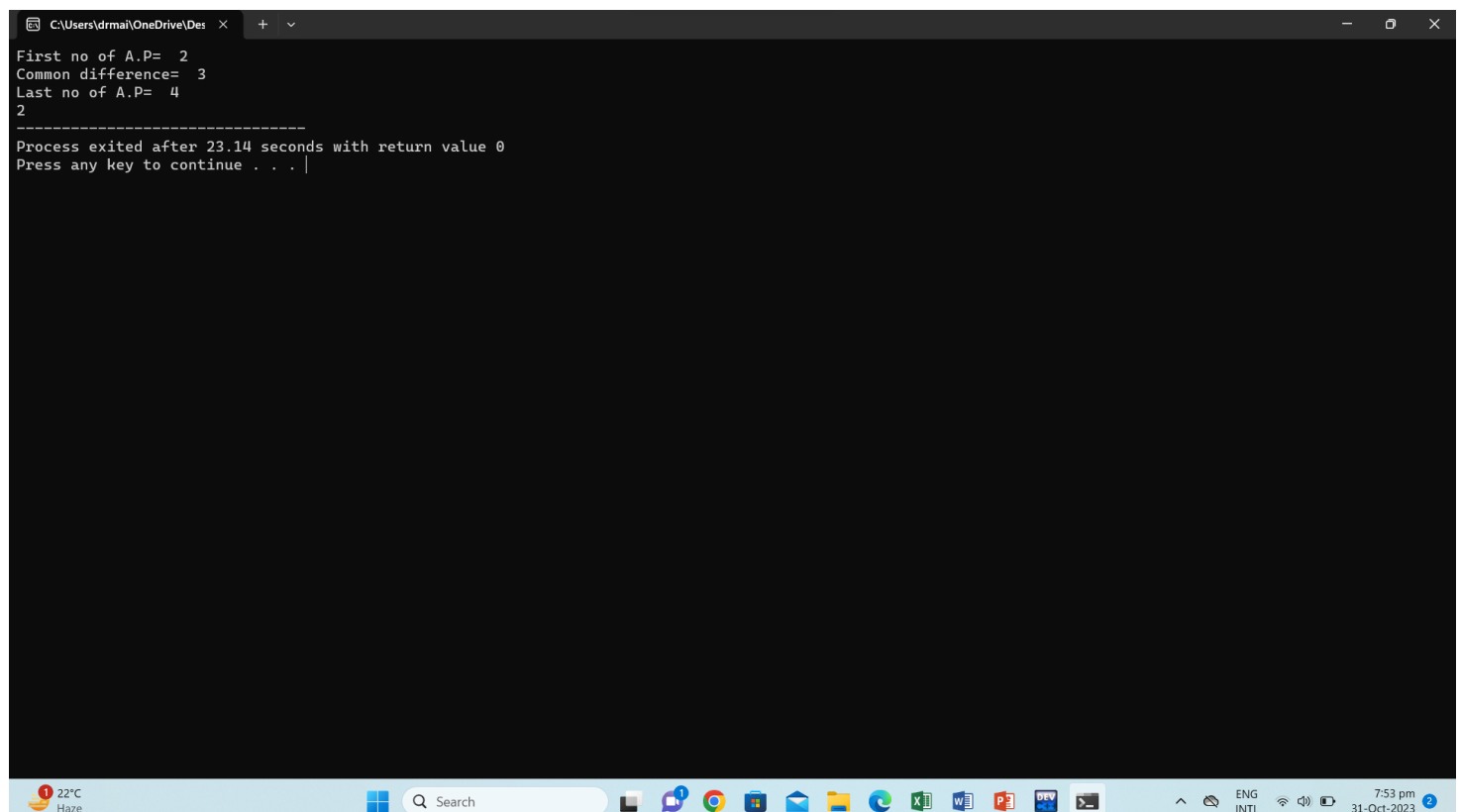
-----
Process exited after 26.35 seconds with return value 0
Press any key to continue . . .
```

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

CODE:

```
#include<iostream>
using namespace std;
int main(){
    int w,x,y,z;
    cout<<"First no of A.P= ";          //TAKING INPUT OF a1
    cin>>w;
    cout<<"Common difference= ";        //TAKING VALUE OF d
    cin>>x;
    cout<<"Last no of A.P= ";           //TAKING VALUE OF an
    cin>>y;
    z=w;
    while(w<=y){
        cout<<w<<" ";
        w=w+x;}
    while(z>y){
        cout<<"Not valid";
    }
}
```

OUTPUT:



```
C:\Users\drmai\OneDrive\Desktop >
First no of A.P= 2
Common difference= 3
Last no of A.P= 4
2
-----
Process exited after 23.14 seconds with return value 0
Press any key to continue . . .
```

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

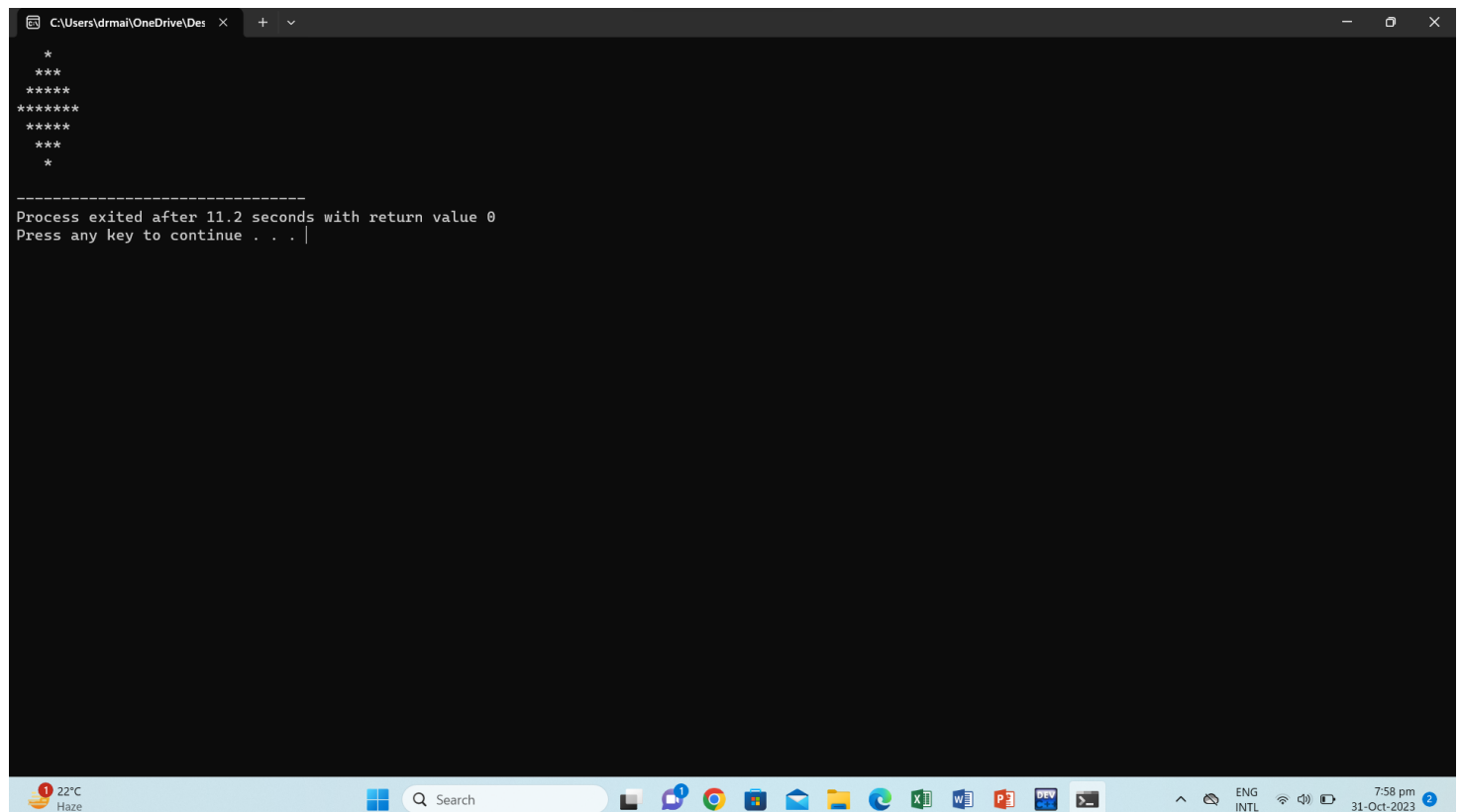
CODE:

```
#include <iostream>
using namespace std;
int main() {
    int x=7,y,z;

    // Upper part of the diamond
    for(y=0;y<x/2+1;y++) {
        for(z=0;z<x/2-y;z++){
            cout<<" ";    }
        for(z=0;z<2*y+1;z++){
            cout<<"*";    }
        cout<<endl;    }

    // Lower part of the diamond
    for (y=x/2-1;y>=0;y--){
        for(z=0;z<x/2-y;z++){
            cout<<" ";    }
        for(z=0;z<2*y+1;z++){
            cout<<"*";    }
        cout<<endl;    }    }
```

OUTPUT:



```
C:\Users\drmai\OneDrive\Des
*
***
*****
*****
*****
***
*

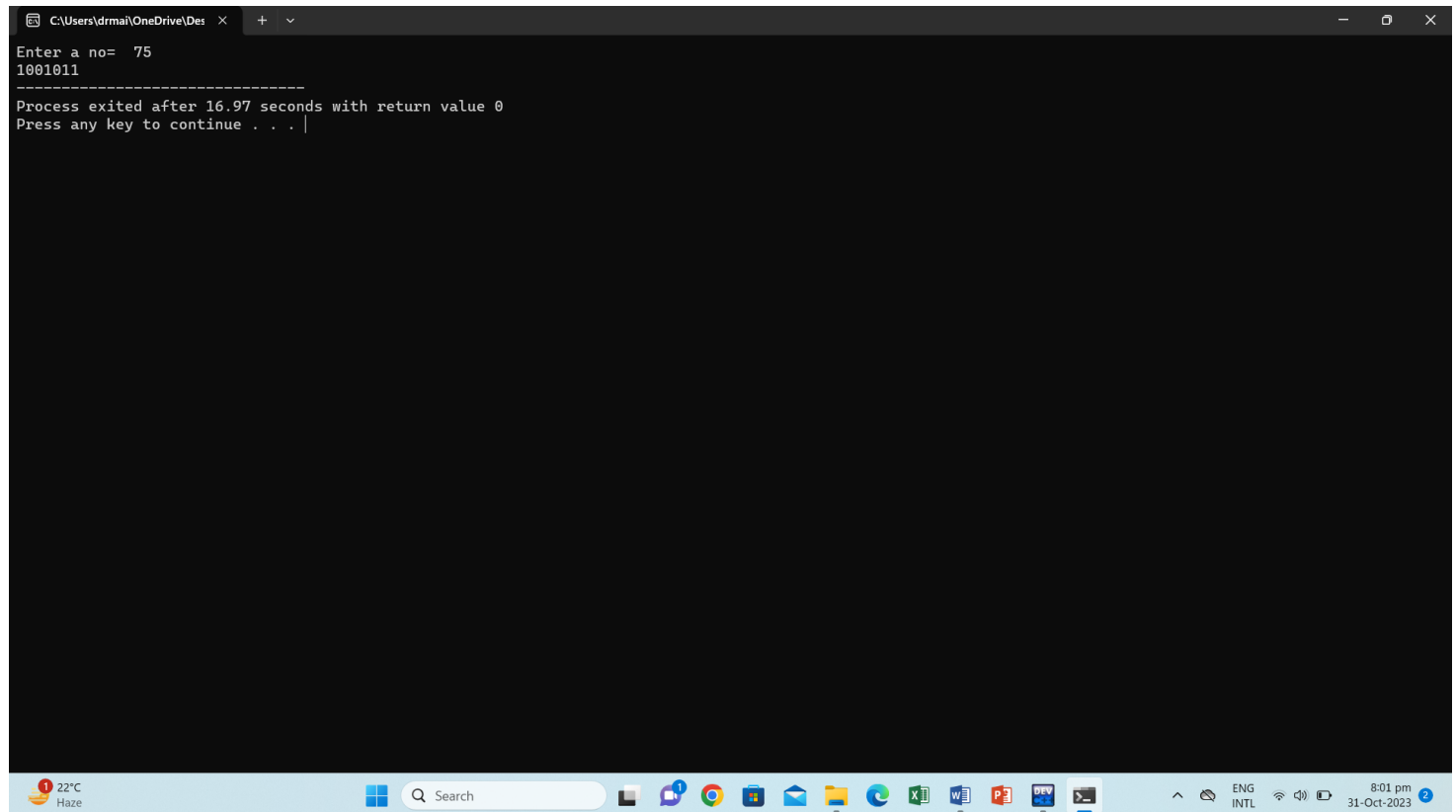
-----
Process exited after 11.2 seconds with return value 0
Press any key to continue . . .
```

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

CODE:

```
#include<iostream>
using namespace std;
int main(){
int x,y=0,bin[1000];
cout<<"Enter a no= ";      //TAKING INPUT
cin>>x;
for(int a=0;x>0;a++){      //CONDITION FOR REMAINDER 1 OR 0
    bin[a]=x%2;
    x=x/2;
    y++;
}
for(int b=y-1;b>=0;b--){   //MAKING CONDITION FOR REVERSING OF ANS VALUES
    cout<<bin[b];
}
}
```

OUTPUT:

A screenshot of a Windows terminal window with a dark background. The window title bar shows the file path 'C:\Users\drmai\OneDrive\Des'. The terminal output shows the program's execution: it prompts 'Enter a no= 75', displays the binary result '1001011', and then shows the process exit message 'Process exited after 16.97 seconds with return value 0' followed by 'Press any key to continue . . .'. The Windows taskbar is visible at the bottom, showing the Start button, search bar, and various application icons. The system tray on the right indicates a temperature of 22°C, the language is set to ENG INTL, and the date and time are 8:01 pm on 31-Oct-2023.