

Fundamentals Of Programming

Instructor
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LAB Manual 5 Home task

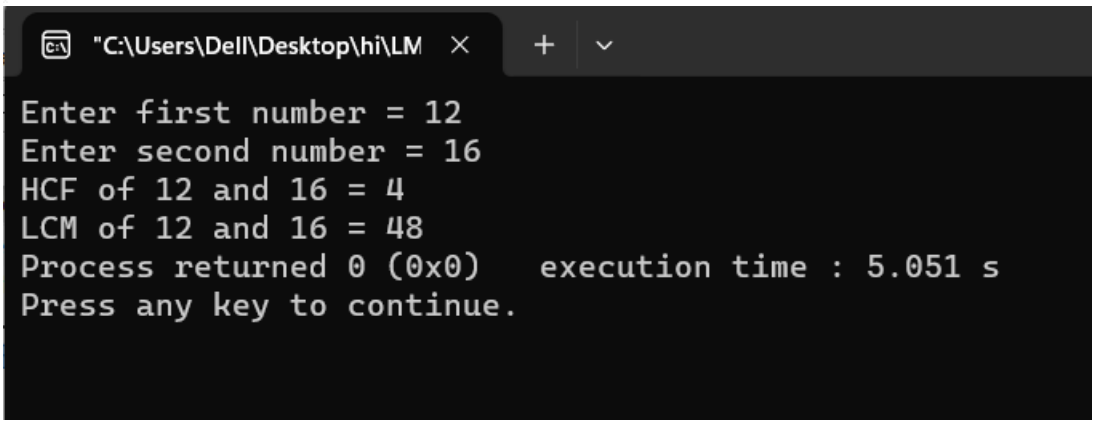
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//1. Write a program in C++ to find LCM of any two numbers using HCF.

```
#include <iostream>

using namespace std;

int main()
{
    int a,b,c;
    cout<<"Enter first number = ";
    cin>>a;
    cout<<"Enter second number = ";
    cin>>b;
    for(int i=1;i<=a||i<=b;i++){
        if(a%i==0&&b%i==0){
            c=i;
        }
    }
    cout<<"HCF of "<<a<<" and "<<b<<" = "<<c<<endl;
    int LCM = (a*b)/c;
    cout<<"LCM of "<<a<<" and "<<b<<" = "<<LCM;
    return 0;
}
```



```
"C:\Users\Dell\Desktop\hi\LM" × + ▾
Enter first number = 12
Enter second number = 16
HCF of 12 and 16 = 4
LCM of 12 and 16 = 48
Process returned 0 (0x0)    execution time : 5.051 s
Press any key to continue.
```

```

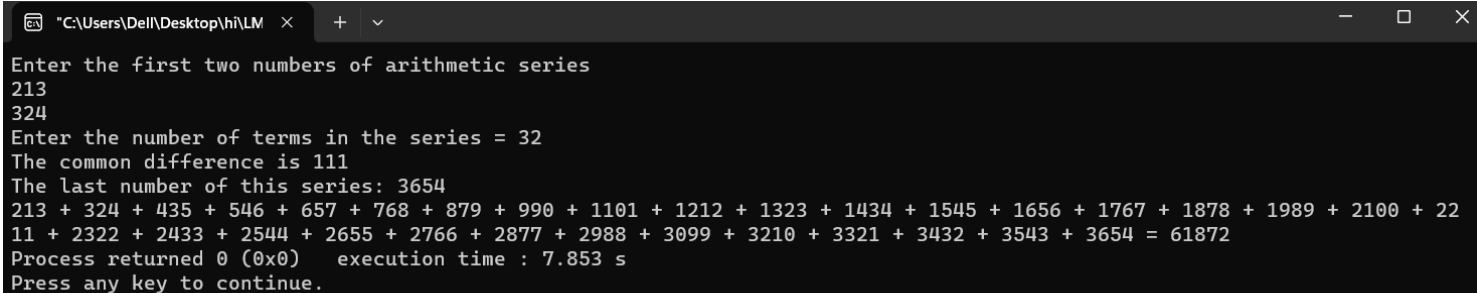
//2. Write a program in C++ to find out the sum of an Arithmetic progression series.
#include <iostream>

using namespace std;

int main()
{
    int x,y,z;
    cout<<"Enter the first two numbers of arithmetic series \n";
    cin>>x;
    cin>>y;
    cout<<"Enter the number of terms in the series = ";
    cin>>z;
    int s= y-x;
    cout<<"The common difference is "<<s<<endl;
    int D = (z/2)*(2*x+(z-1)*s) ;
    int q=x+(z-1)*s;
    cout<<"The last number of this series: "<<q<<endl;
    int w=x;
    for(w;w<=q;w=w+s){
    if(w!=q){
        cout<<w<<" + ";
    }
    else
        cout<<w<<" = ";
    }
    cout<<D;

    return 0;
}

```



```

C:\Users\Dell\Desktop\hi\LM >
Enter the first two numbers of arithmetic series
213
324
Enter the number of terms in the series = 32
The common difference is 111
The last number of this series: 3654
213 + 324 + 435 + 546 + 657 + 768 + 879 + 990 + 1101 + 1212 + 1323 + 1434 + 1545 + 1656 + 1767 + 1878 + 1989 + 2100 + 22
11 + 2322 + 2433 + 2544 + 2655 + 2766 + 2877 + 2988 + 3099 + 3210 + 3321 + 3432 + 3543 + 3654 = 61872
Process returned 0 (0x0)   execution time : 7.853 s
Press any key to continue.

```

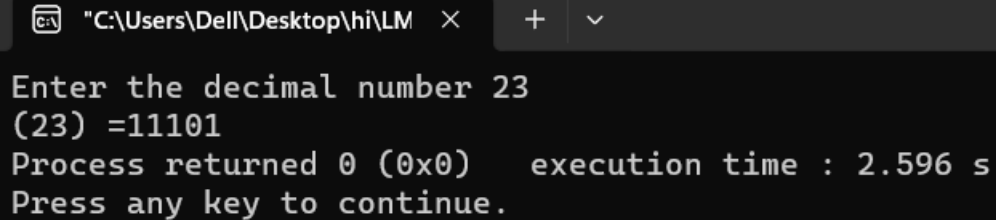


```
//Write a program in C++ to convert a decimal number to binary number.
#include <iostream>

using namespace std;

int main()
{
    int p,q,z=0;
    cout<<"Enter the decimal number ";
    cin>>p;
    cout<<" ("<<p<<" ) =";
    for (p;p>0;p=p/2) {
        q=p%2;
        cout<<q; }

    return 0;
}
```



The screenshot shows a terminal window with a dark background. The title bar at the top indicates the file path "C:\Users\Devi\Desktop\hi\LM" and includes standard window controls. The terminal output shows the program's execution: it prompts for a decimal number, receives the input 23, and outputs its binary representation as 11101. Below this, it displays the process return code as 0 (0x0) and the execution time as 2.596 seconds. The prompt "Press any key to continue." is shown at the bottom, with a cursor on the line below it.

```
"C:\Users\Devi\Desktop\hi\LM" × + ▾
Enter the decimal number 23
(23) =11101
Process returned 0 (0x0)   execution time : 2.596 s
Press any key to continue.
|
```