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HomeTask5

1.Code to find LCM of any two numbers using HCF.

```
#include<iostream>

using namespace std;

int main()
{
    int x,y,hcf=1;

    cout<<"Enter two numbers :";

    cin>>x>>y;

    for(int c=1;c<=x;c++)
    {
        if(x%c==0 && y%c==0)
        {
            hcf=c;
        }
    }

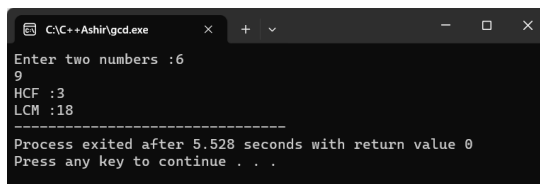
    cout<<"HCF :"<<hcf<<endl;

    int lcm;

    lcm=x*y/hcf;

    cout<<"LCM :"<<lcm;

    return 0;
}
```



```
C:\C++\Ashin\gcd.exe
Enter two numbers :6
9
HCF :3
LCM :18
-----
Process exited after 5.528 seconds with return value 0
Press any key to continue . . .
```

2. Code to find the sum of an arithmetic series.

```
#include <iostream>

using namespace std;

int main()
{
    int n1, n, d, sum, k, t, q;

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

    cin>>n1;

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

    cin>>n;

    cout<<"Enter the common difference :";

    cin>>d;

    t= n*(2*n1+(n-1)*d)/2;

    q= n1+(n-1)*d;

    cout<<"The sum of Series is :"<<endl;

    for(k=n1; k<=q; k=k+d)
    {

        if(k!=q)

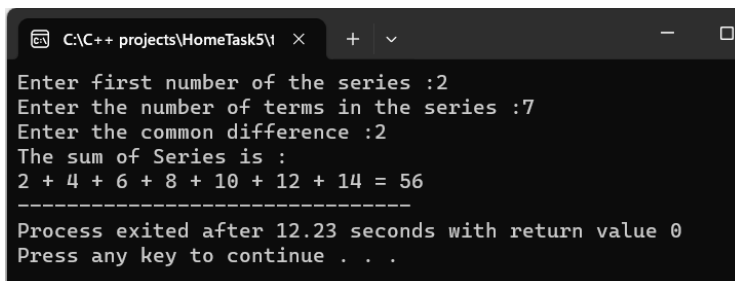
            cout<<k<<" + ";

        else

            cout<<k<<" = "<<t;

    }

    return 0;
}
```



The screenshot shows a terminal window with the following output:

```
C:\C++ projects\HomeTask5\l  ×  +  v
Enter first number of the series :2
Enter the number of terms in the series :7
Enter the common difference :2
The sum of Series is :
2 + 4 + 6 + 8 + 10 + 12 + 14 = 56
-----
Process exited after 12.23 seconds with return value 0
Press any key to continue . . .
```

3.Code to print diamond.

```
#include<iostream>

using namespace std;

int main()
{ //loop for upper triangle.

    int r, s , c;

    for(r=1; r<=4; r++)

    {

        for(s=1; s<=4-r; s++){

            cout<<" ";

        }

        for (c=1; c<=r*2-1; c++){

            cout<<"*";

        }

        cout<<endl;

    }

    for(r=3; r>=1; r--){          // Loop for loower triangle

        for( s=1; s<=4-r; s++){

            cout<<" ";

        }

        for(c=1; c<=2*r-1; c++){

            cout<<"*";

        }

        cout<<endl;

    }

    return 0;

}
```

```
C:\C++ projects\HomeTask5\ >
*
***
*****
*****
*****
***
*

-----
Process exited after 0.09157 seconds with return value 0
Press any key to continue . . .
```

4.Code to convert decimal number to binary number.

```
#include<iostream>

using namespace std;

int main()
{
    int n, b=0, rem=0, place=1;

    cout<<"Enter a decimal number :";

    cin>>n;

    while(n)
    {
        rem=n%2;

        n=n/2;

        b=b+(rem*place);

        place=place*10;
    }

    cout<<"Binary form : "<<b;

    return 0;
}
```

```
C:\C++ projects\HomeTask5\ >
Enter a decimal number :35
Binary form : 100011

-----
Process exited after 1.723 seconds with return value 0
Press any key to continue . . .
```