

Fop Lab Home Task 5

Name: Mahummad Ramiz Aslam

CMS ID: 454142

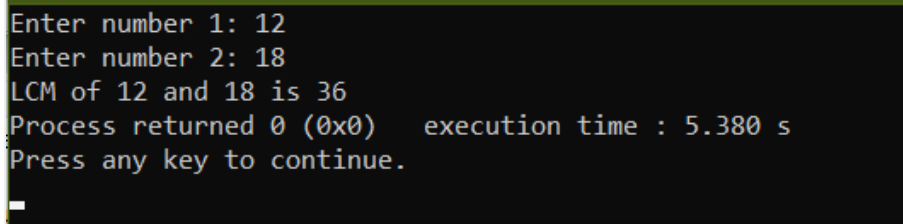
Section: B

TASK 1

```
#include <iostream>
using namespace std;
int main() {
    int num1, num2, bigger, HCF; double LCM;
    cout<<"Enter number 1: "; cin>>num1;
    cout<<"Enter number 2: "; cin>>num2;
    if (num1>num2) bigger=num1;
    else bigger=num2;
    for (int i = 1; i<=bigger; i++) {
        if (num1%i==0 && num2%i==0)
            HCF = i; }

    LCM = ((double)num1*(double)num2)/((double)HCF;
    cout<<"LCM of "<<num1<<" and "<<num2<<" is "<<LCM; }
```

Output

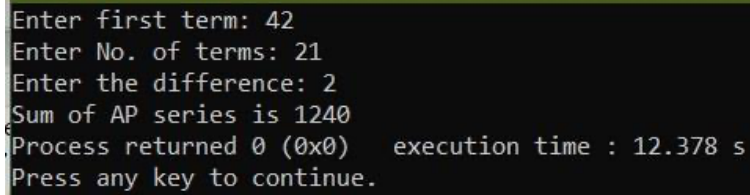
A screenshot of a terminal window showing the output of the C++ program. The text is as follows:

```
Enter number 1: 12
Enter number 2: 18
LCM of 12 and 18 is 36
Process returned 0 (0x0)   execution time : 5.380 s
Press any key to continue.
```

Task 2

```
#include <iostream>
using namespace std;
int main()
{
    int x, y, z, sum;
    cout<<"Enter first term: "; cin>>x;
    cout<<"Enter No. of terms: "; cin>>y;
    cout<<"Enter the difference: "; cin>>z;
    sum = (y/2)*(2*x+((y-1)*z));
```

```
cout<<"Sum of AP series is "<<sum; }
```



```
Enter first term: 42
Enter No. of terms: 21
Enter the difference: 2
Sum of AP series is 1240
Process returned 0 (0x0)   execution time : 12.378 s
Press any key to continue.
```

Task 3

```
#include <iostream>
#include <string>
using namespace std;
int main()
{
    int spaces;
    for (int a = 1; a<=9; a+=2)
    {
        spaces = 9-a;
        for (int b = 1; b <= spaces/2; b++)
        {
            cout<<" "; }

        for (int b = 1; b <= a; b++) { cout<<"*";
        }

        cout<<endl;
    }

    for (int a = 7; a>=1; a-=2) {
        spaces = 9-a;
        for (int b = 1; b <= spaces/2; b++) {
            cout<<" "; }
        for (int b = 1; b <= a; b++) { cout<<"*";
        }
        cout<<endl; }
    }
```

Output

```

    *
    ***
    *****
    *****
    *****
    *****
    *****
    ***
    *

Process returned 0 (0x0)   execution time : 0.122 s
Press any key to continue.
```

TASK 4

```
#include <iostream>
#include <string>
using namespace std;

int main()
{
    int rem, quotient, num;
    cout<<"Enter the decimal number: "; cin>>num;
    string bin;
    quotient = num;
    while(quotient != 0) {
        rem = quotient % 2;
        quotient /= 2;
        if (remainder == 1) {
            bin = '1' + bin; } else {
            bin = '0' + bin;
        }
    }
    cout<<bin;
}
```

Output

```
Enter the decimal number: 47
101111
Process returned 0 (0x0)   execution time : 1.982 s
Press any key to continue.
```