Lab manual 5:

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Task#1:

```cpp
#include<iostream>
using namespace std;
int main() {
int num1,num2,lcm,result1,result2,LesserNo,GreaterNo;
cout<<"Enter first number: ";
cin>>num1;
cout<<"Enter second number: ";
cin>>num2;
if(num1>num2)
{
lcm=num1;
LesserNo=num2;
GreaterNo=num1;
}
else
{
lcm=num2;
LesserNo=num1;
GreaterNo=num2;
}
while(1)
{
result1=lcm%num1;
result2=lcm%num2;
if(result1==0 && result2==0)
{
```
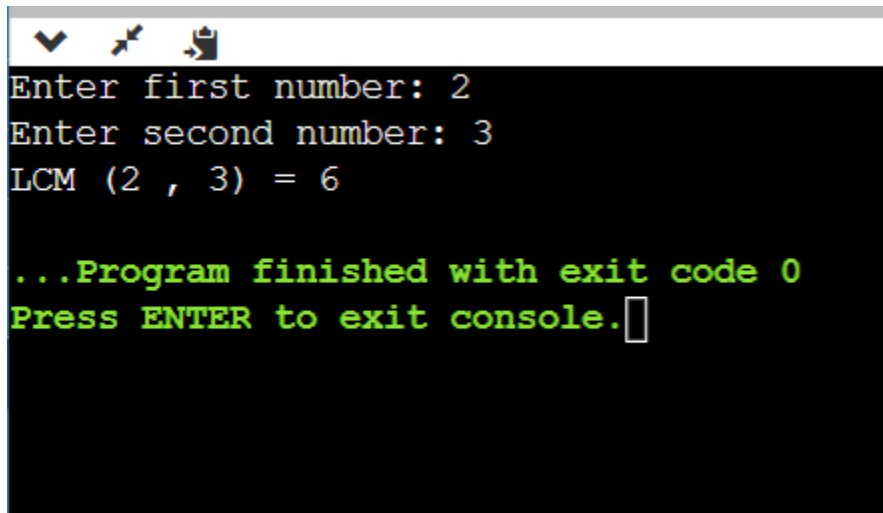
```
break;

}

else

{

lcm++;

}

}

cout<<"LCM ("<<LesserNo<<" , "<<GreaterNo<<") = "<<lcm;

return 0;

}
```

```
Enter first number: 2
Enter second number: 3
LCM (2 , 3) = 6

...Program finished with exit code 0
Press ENTER to exit console.
```

Task#2:

```
#include<iostream>

using namespace std;

 int main() {

double terms,difference,first,sum;

cout<<"Enter number of terms in arithmetic progression series: ";

cin>>terms;

cout<<"Enter the difference between each term (common difference): ";
```

```cpp
cin>>difference;

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

cin>>first;

sum=terms*((2*first)+((terms-1)*difference))/2;

cout<<"The sum of terms in the arithmetic progression series is: "<<sum<<endl;

return 0;

}
```
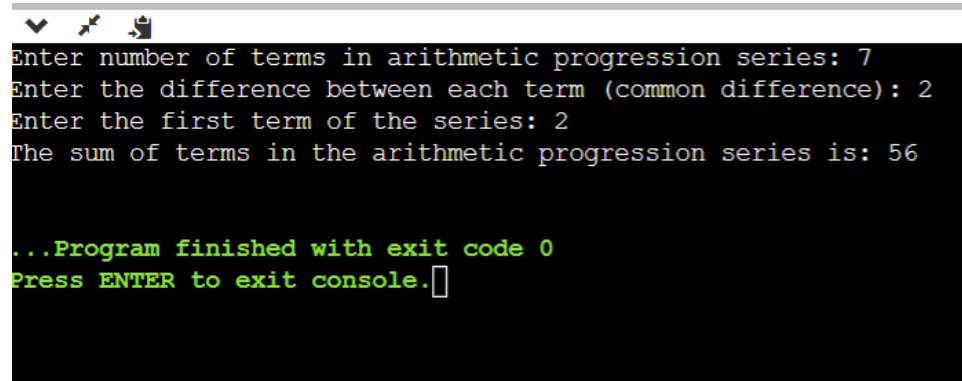
```
Enter number of terms in arithmetic progression series: 7
Enter the difference between each term (common difference): 2
Enter the first term of the series: 2
The sum of terms in the arithmetic progression series is: 56


...Program finished with exit code 0
Press ENTER to exit console.
```

Task#3:

```cpp
#include<iostream>

using namespace std;

int main() {

int i;

for(i=0;i<9;i++)

{

if(i==0||i==8)

{

cout<<"   *   "<<endl;

}

else if(i==1||i==7)

{
```
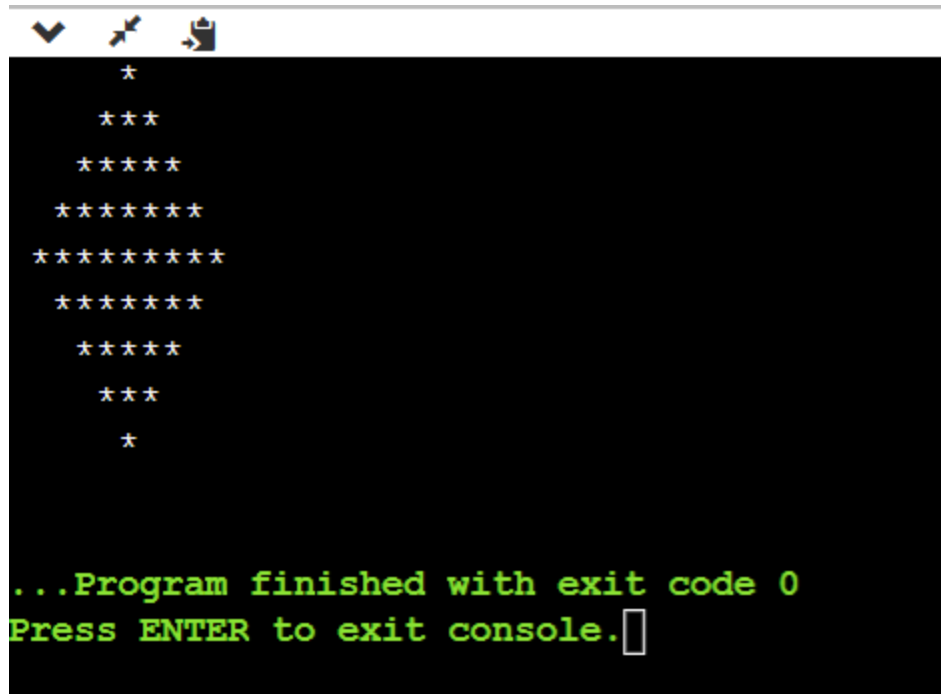
```cpp
cout<<"   ***   "<<endl;

}

else if(i==2||i==6)

{

cout<<"  *****  "<<endl;

}

else if(i==3||i==5)

{

cout<<"  ******* "<<endl;

}

else

{

cout<<" *********"<<endl;

}

}

    return 0;

}
```

```
           *
         ***
        *****
       *******
      *********
       *******
        *****
         ***
          *


...Program finished with exit code 0
Press ENTER to exit console.
```

Task#4:

```cpp
#include<iostream>

using namespace std;

int main() {

int i,decimal,binary,remainder,quotient;

cout<<"Enter number a decimal number: ";

cin>>decimal;

quotient=decimal/2;

remainder=decimal%2;

cout<<decimal<<" converted to binary is:";

for(;true;)

{

if(quotient>=1)

{

cout<<" "<<remainder;

decimal=decimal/2;
```

```
quotient=decimal/2;

remainder=decimal%2;

}

else

{

    cout<<" "<<remainder;

break;

}

}

return 0;

}
```



```
Enter number a decimal number: 35
35 converted to binary is: 1 1 0 0 0 1

...Program finished with exit code 0
Press ENTER to exit console.
```