LAB # 8:

USING FUNCTIONS IN C++.

LAB#08

Lab Task:

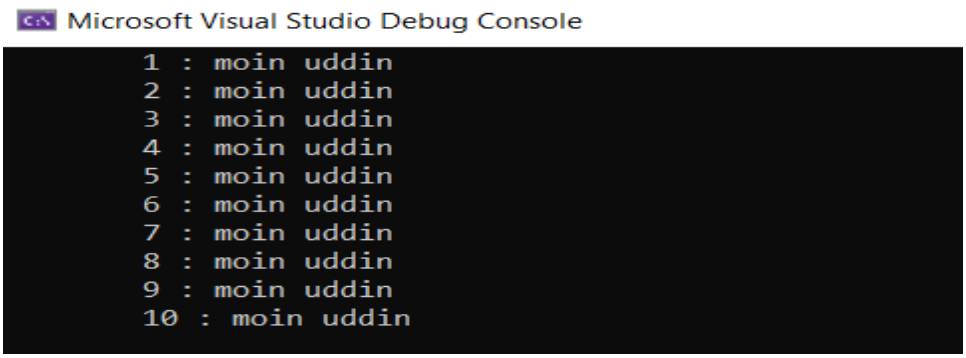
1. Using function, write a complete program that prints your name 10 times. The Function can take no arguments and should not return any value.

SOURCE CODE:

```
#include<iostream>
using namespace std;
void printname()
{
    for (int x = 1; x <= 10; x++)
    {
        cout << "\t" << x << " : moin uddin " << endl;

    }
}
int main()
{
    printname();
    return 0;
}
```

Output:



2. Write a function to calculate the factorial value of any integer entered through the keyboard.

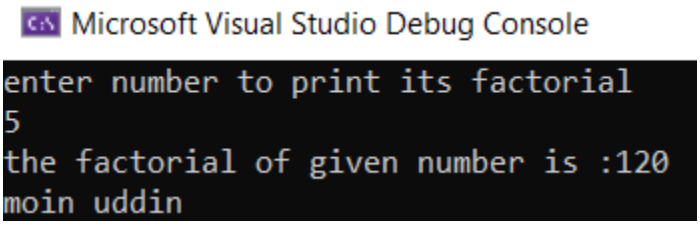
SOURCE CODE:

```
#include<iostream>
using namespace std;
int printfactorial() {
    int num1, num2;
    int result = 1;
    cout << "enter number to print its factorial" << endl;
    cin >> num1;
    for (num2 = 1; num2 <= num1; num2++)
    {
        result = result * num2;
    }

    return result;
}

int main()
{
    int result = printfactorial();
    cout << "the factorial of given number is :" << result << endl;
    cout << "moin uddin" << endl;
}
```

Output:

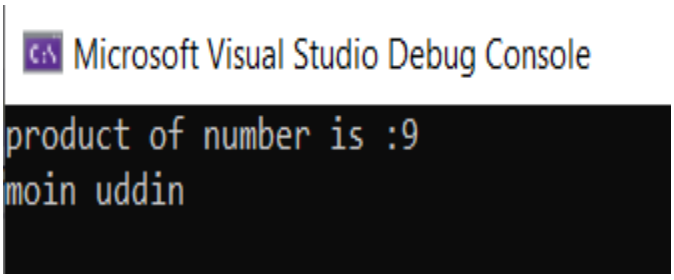


3. Write a function which receives a float and an int from main ( ), finds the product of these two and returns the product which is printed through main ( ).

SOURCE CODE:

```
#include <iostream>
using namespace std;
float prod(int x, float y) {
    return x * y;
}
int main()
{
    float result = prod(2, 4.5);
    cout << "product of number is :" << result << endl;
    cout << "moin uddin" << endl;
}
```

Output:

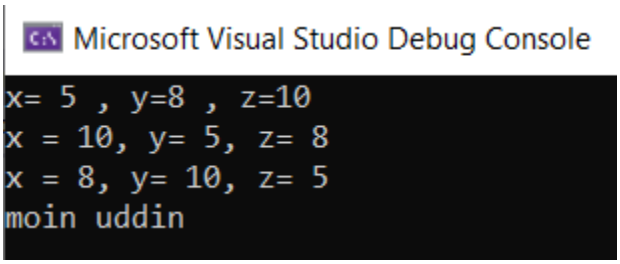


4. Given three variables x, y, z write a function to circularly shift their values to right. In other words if x = 5, y = 8, z = 10 after circular shift y = 5, z = 8, x =10 after circular shift y = 5, z = 8 and x = 10. Call the function with variables a, b, c to circularly shift values.

SOURCE CODE:

```
#include<iostream>
using namespace std;
void circularyshift(int x, int y, int z)
{
    int a, b, c;
    a = x;
    b = y;
    c = z;
    x = c;
    y = a;
    z = b;
    cout << "x = " << x << ", y= " << y << ", z= " << z << endl;
}
int main()
{
    cout << "x= 5 , y=8 , z=10 " << endl;
    circularyshift(5, 8, 10);
    circularyshift(10, 5, 8);
    cout << "moin uddin\n";
}
```

Output:



5. Identify the errors (if any) in your own words in the given pieces of code:

a) func(int a,float b)

{

return (5.75);

}

b) int , float newfunction(void)

{

return (7, 6.96);

}

ERRORS:

a) Function return type not define.

b) Function cannot have two return.

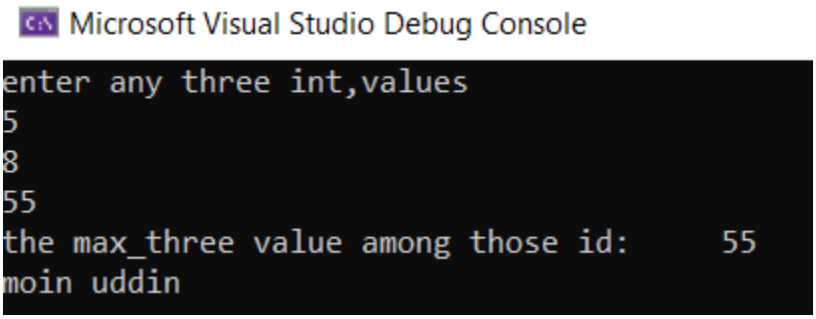
6. Write a program that ask for three numbers, compare them and show the maximun. Declare a function called max_three that compares the numbers and returns the maximun.

SOURCE CODE:

```
#include<iostream>
using  namespace std;
void max_three(int x, int y, int z);
void max_three(int x, int y, int z)
{
    int max_three;
    max_three = (x > y) ? x : y;
    max_three = (max_three > z) ? max_three : z;
    cout << "the max_three value among those id:\t" << max_three << endl;
}

int main()
{
    int x, y, z;
    cout << "enter any three int,values" << endl;
    cin >> x >> y >> z;
    max_three(x, y, z);
    cout << "moin uddin\n";
}
```

Output:



7. Write a program that asks the user for an integer number and find the sum of all natural numbers upto that number.

SOURCE CODE:

```cpp
#include<iostream>
using namespace std;
int sumofinteger(int num)
{
    int result = 0;
    for (int x = 0; x <= num; x++){
        result = result + x;
}
    return result;
}
int main()
{
    int num;
    cout << "enter any integer" << endl;
    cin >> num;
    cout << "sum of integer from 1 to " << num << " is " << sumofinteger(num) << endl;
    cout << "moin uddin\n";
}
```

Output: