}

Output:

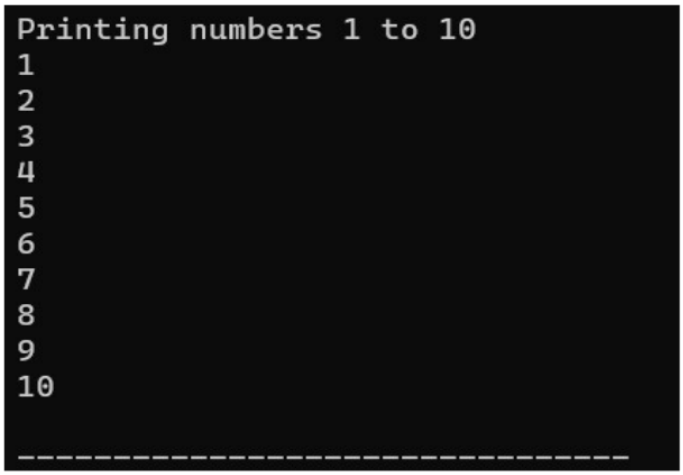
```
Enter the number
5
The factorial is 120
--------------------------------
Process exited after 2.349 seconds with return value 0
Press any key to continue . . .
```

14. Program to
print numbers from 1 to 10 using for loop

Program:

```
#include<iostream>
using namespace std;
int main(){
        cout<<"Printing numbers 1 to 10"<<endl;
for(int i=1;i<11;i++){
cout<<i<<endl;
}
}
```

Output:



15. Factorial of
a number using for loop

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,fact=1;
        cout<<"Enter the number"<<endl;
cin>>x;
for(int i=1;i<x+1;i++){
                fact=fact*i;
}
cout<<"The factorial is "<<fact;
```

```
    int x,y;
    string result;
    cout<<"Enter the two numbers "<<endl;
    cin>>x;
}   cin>>y;
    result=(x==y) ? "They are equal" : "They are not
Output: equal"; cout<<result;
```

```
Enter the two numbers
6
3
They are not equal
--------------------------------
Process exited after 3.357 seconds with return value 0
Press any key to continue . . .
```

13. Program to
check the integer is divisible by 3 or not using ternary conditional operator

Program:

```
#include<iostream>
#include<string>
using namespace std;
int main(){
int x;
string result;
cout<<"Enter the number"<<endl;
cin>>x;
result=(x%3==0) ? "Divisible by three" : "Not divisible by three";
cout<<result;

}
```

Output:

```
Enter the number
9
Divisible by three
--------------------------------
Process exited after 2.084 seconds with return value 0
Press any key to continue . . .
```

```
Enter the numbers
5
6
Before swapping x = 5 y = 6
After swapping, x = 6 y = 5
--------------------------------
Process exited after 8.663 seconds with return value 0
Press any key to continue . . .
```

11. Largest among
three numbers using ternary conditional operator

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y,z,l;
cout<<"Enter the three numbers"<<endl;
cin>>x;
cin>>y;
cin>>z;
l=x;
if(y>l){
l=y;
}
if(z>l){
l=z;
}
        cout<<"The greatest of three numbers is "<<l;
}
```

Output:

```
Enter the three numbers
5
6
7
The greatest of three numbers is 7
--------------------------------
Process exited after 4.732 seconds with return value 0
Press any key to continue . . .
```

12. Program to
check two numbers are equal or not using ternary conditional operator

Program:

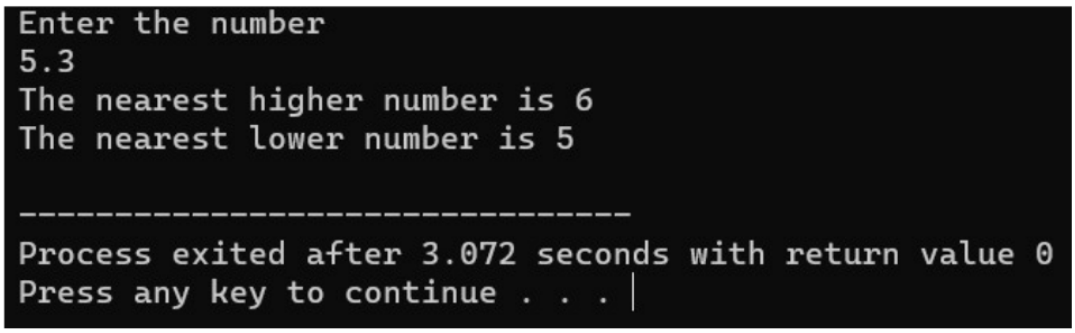
```
#include<iostream>
#include<string>
using namespace std;
int main(){
```

9. Program to read a floating-number and round it to the nearest integer using the floor an ceil functions.

Program:

```
#include<iostream>
#include<cmath>
using namespace std;
int main(){
float x;
cout<<"Enter the number"<<endl;
cin>>x;
        cout<<"The nearest higher number is "<<ceil(x)<<endl;
      cout<<"The nearest lower number is "<<floor(x)<<endl;
}
```

Output:



10. Program to swap two numbers using bitwise XOR operator

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y;
cout<<"Enter the numbers "<<endl;
cin>>x;
cin>>y;
        cout<<"Before swapping x = "<<x<<" y = "<<y<<endl;
x=x^y;
y=x^y;
x=x^y;
cout<<"After swapping, x = "<<x<<" y = "<<y;

}
```

Output:

```
 if(x>0){
                  cout<<"Positive number";
}
else if(x<0){
                 cout<<"Negative number";
}
else{
                  cout<<"Zero";
}
}
```

Output:

```
Enter the number-5
Negative number
--------------------------------
Process exited after 4.526 seconds with return value 0
Press any key to continue . . .
```

8. Program to determine which number is greater among two integers

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y;
cout<<"Enter the two numbers"<<endl;
cin>>x;
cin>>y;
if(x>y){
cout<<"First number is greater";
}
else{
cout<<"Second number is greater";
}
}
```

Output:

```
Enter the two numbers
8
5
First number is greater
--------------------------------
Process exited after 4.374 seconds with return value 0
Press any key to continue . . .
```

6. Program to check the character is a vowel or consonant

Program:

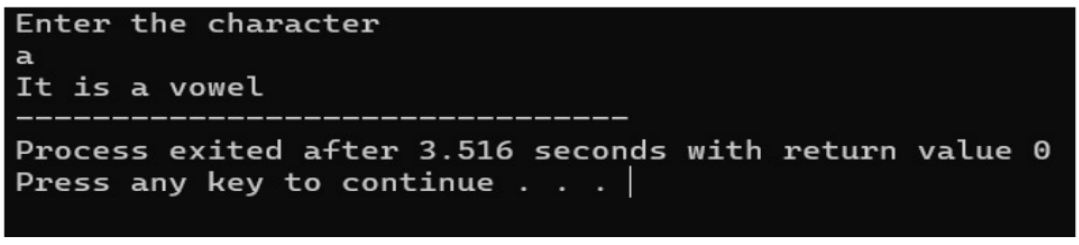
```
#include<cctype>
#include<iostream>
using namespace std;
int main(){
char x;
cout<<"Enter the character"<<endl;
cin>>x;
char y=tolower(x);
                if(y=='a' || y=='e' || y=='i' || y=='o' || y=='u'){
cout<<"It is a vowel";
}
else{
                        cout<<"It is a consonant";

}



}
```

Output:



7. Program to check the number is positive, negative or zero

Program:

```
#include<iostream>
using namespace std;
int main(){
int x;
                cout<<"Enter the number";
cin>>x;
```

```
Enter the two numbers
5
9
They are not equal
--------------------------------
Process exited after 3.396 seconds with return value 0
Press any key to continue . . .
```

5. Write a program to read in two Floating numbers and perform the following operations on them: addition, subtraction, multiplication, division, and modulo.

Program:

```
#include<iostream>
using namespace std;
int main(){
float x,y;
cout<<"Enter two numbers"<<endl;
cin>>x;
cin>>y;
float sum=x+y;
float diff=x-y;
float mul=x*y;
float div=x/y;
cout<<"The sum is "<<sum<<endl;
        cout<<"The difference is "<<diff<<endl;
cout<<"The product is "<<mul<<endl;
cout<<"The modulo is "<<div<<endl;
return 0;
}
```

Output:

```
Enter two numbers
5.23
10.85
The sum is 16.08
The difference is -5.62
The product is 56.7455
The modulo is 0.482028

--------------------------------
Process exited after 6.478 seconds with return value 0
Press any key to continue . . .
```

```
 int avg=(x+y+z)/3;
        cout<<"The averaage is "<<avg;
return 0;
}
```

Output:

```
Enter three numbers
45
48
50
The averaage is 47
--------------------------------
Process exited after 7.455 seconds with return value 0
Press any key to continue . . .
```

4. Program to check two numbers are equal or not

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y;
                cout<<"Enter the two numbers"<<endl;
cin>>x;
cin>>y;
if(x==y){
cout<<"They are equal";
}
else{
cout<<"They are not equal";
}
}
```

Output:

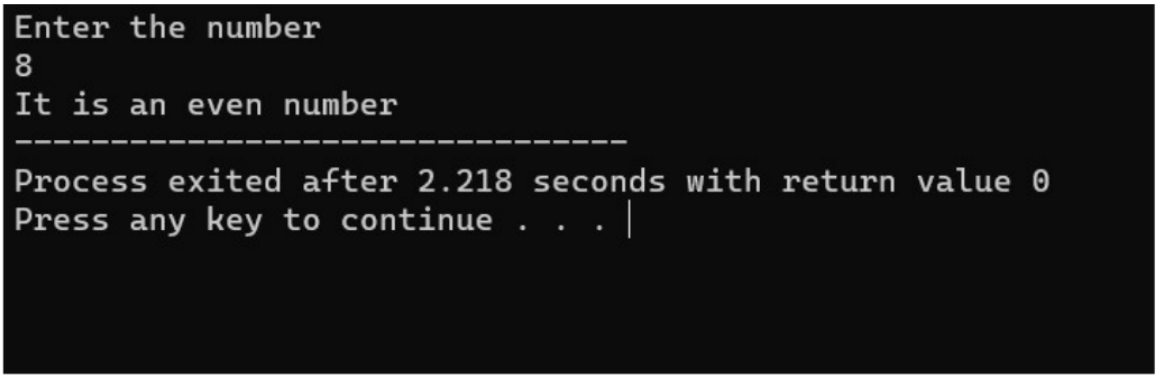
2. Program to determine the integer is odd or even

Program:

```
#include<iostream>
using namespace std;
int main(){
int n;
cout<<"Enter the number "<<endl;
cin>>n;
if(n%2==0){
                    cout<<"It is an even number";

}
else{
                     cout<<"It is an odd number";
}
}
```

Output:



3. Program to compute the average of three integers

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y,z;
          cout<<"Enter three numbers"<<endl;
cin>>x;
cin>>y;
cin>>z;
```

OBJECT ORIENTED PROGRAMMING WITH C++

ASSIGNMENT WORK-2 DATE: 30th December 2023

BALAKUMAR.P

192110266

1. Write a program to read in two integers and perform the following operations on them: addition, subtraction, multiplication, division, and modulo.

Program:

```
#include<iostream>
using namespace std;
int main(){
int x,y;
cout<<"Enter two numbers"<<endl;
cin>>x;
cin>>y;
int sum=x+y;
int diff=x-y;
int mul=x*y;
int div=x%y;
cout<<"The sum is "<<sum<<endl;
        cout<<"The difference is "<<diff<<endl;
cout<<"The product is "<<mul<<endl;
cout<<"The modulo is "<<div<<endl;
return 0;
}
```

Output:

```
Enter two numbers
5
4
The sum is 9
The difference is 1
The product is 20
The modulo is 1

--------------------------------
Process exited after 3.515 seconds with return value 0
Press any key to continue . . .
```