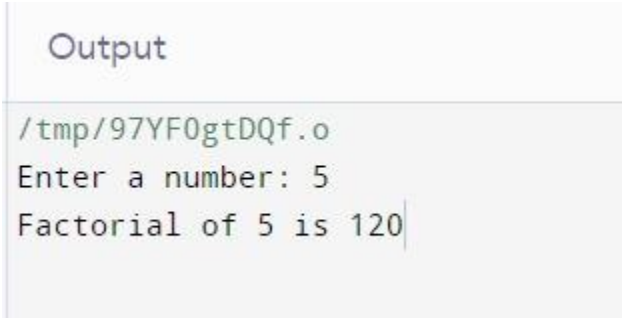
1. WAP to calculate factorial of a number.

Code:

```
#include <iostream>
using namespace std;
int fact(int n)
{
if ((n==0)||(n==1))
return 1;
else
return n*fact(n-1);
}
int main() {
int n;
cout<<"Enter a number: ";
cin>>n;
cout<<"Factorial of "<<n<<" is "<<fact(n);
return 0;
}
```

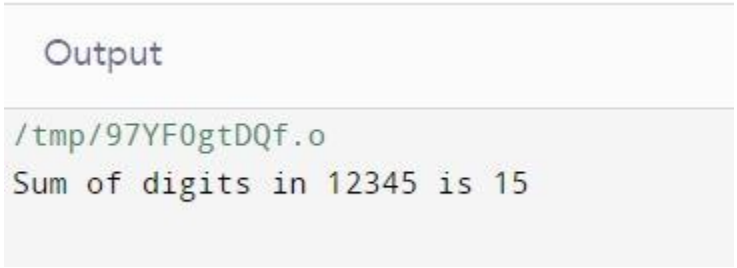


2. WAP to calculate sum of all numbers

```
#include <iostream>
using namespace std;
int sum_of_digit(int n)
{
```

```
if (n == 0)
return 0;
return (n % 10 + sum_of_digit(n / 10));
```

```
}
int main()
{
int num = 12345;
int result = sum_of_digit(num);
cout << "Sum of digits in "<< num
<<" is "<<result << endl;
return 0;
}
```



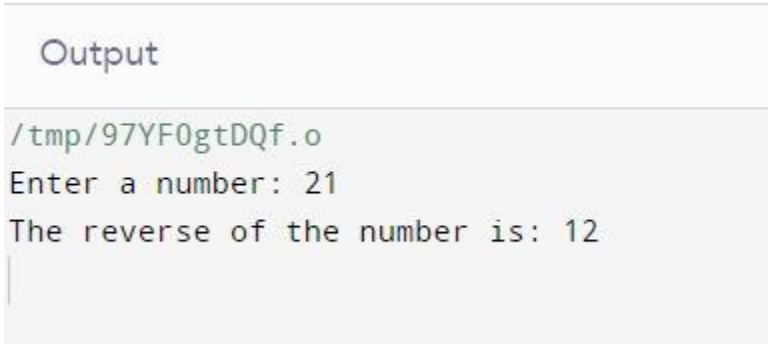
3. WAP to print reverse of a number.

Code:

```
#include <iostream>
using namespace std;
int reverse(int num ,int sum)
{
if (num>0)
{
int r=num%10;
sum=sum*10+r;
```

```
sum=reverse(num/10,sum);
return sum;
}
}
int main()
{
int sum,num;
cout << "Enter a number: ";
```

```
cin >> num;
cout << "The reverse of the number is: " << reverse(num,sum) << endl;
return 0;
}
```

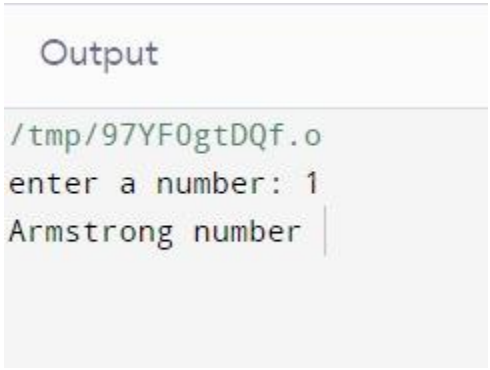


4. WAP to check whether the number is Armstrong or not.

Code:

```
#include <iostream>
using namespace std;
int armstrong(int n, int sum)
{
while(n>0)
{
int x= n%10;
sum = sum + (x*x*x);
return armstrong (n/10,sum);
}
return sum;
}
```

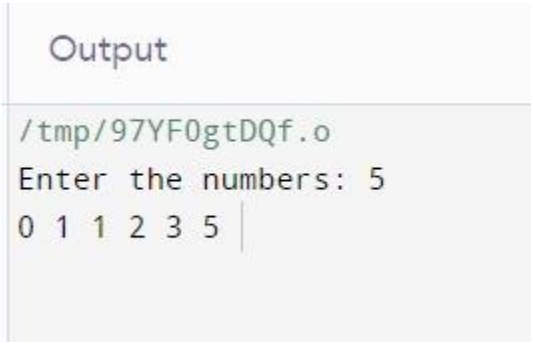
```
int main()
{
int num,temp,sum,x;
cout<<"enter a number: ";
cin>>num;
temp=num;
sum= armstrong(num,0);
if(sum==temp)
cout<<"Armstrong number ";
else
cout<<"is not a armstrong number";
return 0;
}
```



5. WAP to print the Fibonacci series in a given range.

Code:

```
#include <iostream>
using namespace std;
int fib(int n)
{
if(n==0||n==1)
return n;
return fib(n-1)+fib(n-2);
}
int main()
{
int n;
cout<<"Enter the numbers: ";
cin>>n;
for(int i=0;i<=n;i++)
cout<<fib(i)<<" ";
return 0;
}
```



6. WAP to check whether the number entered is palindrome or not.

Code:

```
#include <iostream>
using namespace std;
int palindrome (int n, int temp)
{
if(n==0)
return temp;
temp=temp*10+n%10;
return palindrome (n/10,temp);
}
int main()
{
int n,temp;
cout<<"enter a number to check palindrome : ";
cin>>n;
temp=palindrome(n,0);
cout<<endl;
if(temp==n)
cout<<n<<" is palindrome.";
else
cout<<n<<" Not palindrome";
cout<<endl;
return 0;
}
```