1. WAP for printing all natural numbers till 20.
Code:

```
#include <iostream>
Using namespace std;
int main()
{
for (int i = 1; i<=20; i++)
{
cout << i << endl;
}
return 0;
}
```

Output

```
/tmp/QMyBNXYjCz.o
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
```

2. WAP for printing all natural numbers in reverse order starting from 20.

Code:

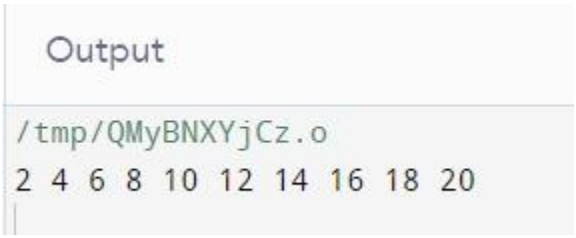
```
#include <iostream>
using namespace std;
int main()
{
for (int i = 20;i>=1; i--)
{
cout << i << endl;
}
return 0;
}
```

Output

```
/tmp/QMyBNXYjCz.o
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
```

3. WAP for printing all even numbers from 1 to 20.
Code:

```
#include <iostream>
using namespace std;
int main()
{
for (int i = 1; i <= 20; i++)
{
if (i % 2 == 0)
{
cout << i << " ";
}
}
cout << endl;
return 0;
}
```



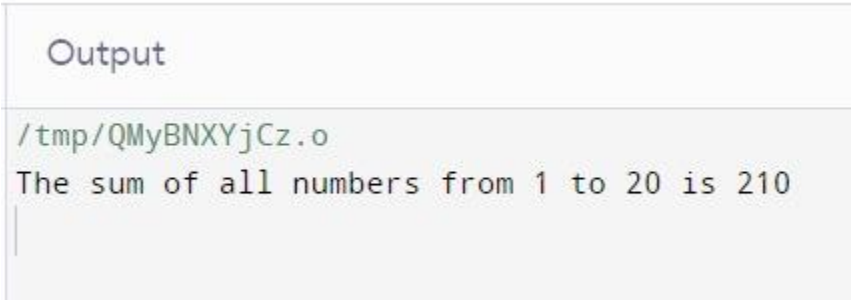
4. WAP for printing all odd numbers from 1 to 20.
Code:

```
#include <iostream>
using namespace std;
int main()
{
for (int i = 1; i <= 20; i++)
{
if (i % 2 != 0) {
cout << i << " ";
}
}
cout << endl;
return 0;
}
```

5. WAP for adding all numbers from 1 to 20.

Code:

```
#include <iostream>
using namespace std;
int main()
{
int sum = 0;
for (int i = 1; i <= 20; i++)
{
sum +=i;
}
cout << "The sum of all numbers from 1 to 20 is " << sum << endl;
return 0;
}
```



6. WAP for finding sum of all even numbers till 20.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int sum =0;
for (int i = 1;i <=20; i++)
{
if (i % 2 == 0)
{
sum = sum +i;
}
}
cout <<sum;
return 0;
}
```

7. WAP for finding sum of all odd numbers till 20.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int sum =0;
for (int i = 1;i <=20; i++)
{
if (i % 2 != 0)
{
sum = sum +i;
}
}
cout <<sum;
return 0;
}
```

8. WAP for printing multiplication table of a number. For eg. Display should be “2 X 1 = 2”
Code:

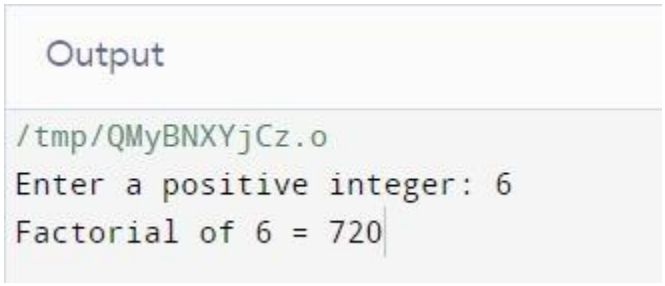
```
#include <iostream>
using namespace std;
int main() {
int n;
cout << "Enter a positive integer: ";
cin >> n;
for (int i = 1; i <= 10; ++i) {
cout << n << " * " << i << " = " << n * i << endl;
}
return 0;
}
```

Output

```
/tmp/QMyBNXYjCz.o
Enter a positive integer: 8
8 * 1 = 8
8 * 2 = 16
8 * 3 = 24
8 * 4 = 32
8 * 5 = 40
8 * 6 = 48
8 * 7 = 56
8 * 8 = 64
8 * 9 = 72
8 * 10 = 80
```

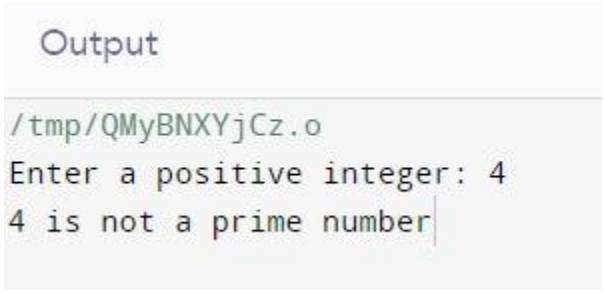
9. WAP to calculate factorial of a number.
Code:

```
#include <iostream>
using namespace std;
int main() {
int n;
long factorial = 1.0;
cout << "Enter a positive integer: ";
cin >> n;
if (n < 0)
cout << "Error! Factorial of a negative number doesn't exist.";
else {
for(int i = 1; i <= n; ++i) {
factorial *= i;
}
cout << "Factorial of " << n << " = " << factorial;
}
return 0;
}
```



10. WAP to check whether a number is prime or not.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int i, n;
bool is_prime = true;
cout << "Enter a positive integer: ";
cin >> n;
if (n == 0 || n == 1) {
is_prime = false;
}
for (i = 2; i <= n/2; ++i) {
if (n % i == 0) {
is_prime = false;
break;
}
}
if (is_prime)
cout << n << " is a prime number";
else
cout << n << " is not a prime number";
return 0;
}
```



11. WAP to print all digits of a number and their sum.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int x,y,z;
z = 0;
cout <<"Enter Number ";
cin >> x;
cout << "Different Digits are "<<"\n";
int i = 0;
while(x>0)
{
y = x%10;
x = x/10;
z = z+y;
cout << y << "\n";
i++ ;
}
cout << "Number of Digits are "<< i;
cout << "\n" << "Sum of Digits are "<< z<< "\n";
}
```

Output

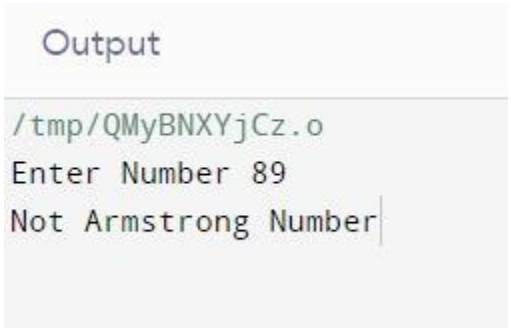
```
/tmp/QMyBNXYjCz.o
Enter Number 34
Different Digits are
4
3
Number of Digits are 2
Sum of Digits are 7
```

12. WAP to print reverse of a number.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int x,y;
cout <<"Enter Number ";
cin >> x;
while(x>0)
{
y = x%10;
x = x/10;
cout << y ;
}
}
```

13. WAP to check whether the number is Armstrong or not.
Code:

```
#include<iostream>
using namespace std;
int main()
{
int x,y,z,a;
z = 0;
cout <<"Enter Number ";
cin >> x;
a = x;
int i = 0;
while(x>0)
{
y = x%10;
x = x/10;
z = z+(y*y*y);
}
if(a==z)
cout << "Armstrong Number";
else
cout << "Not Armstrong Number";
}
```



14. WAP to print the Fibonacci series in a given range.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int x,y,z,i;
int a,b,c;
a = 0;
b = 1;
z = 0;
cout <<"Write Fibonacci Series for first n number = ";
cin >> x;
i=1;
cout <<" "<< a<<" "<< b;
while(i<=x)
{
c= b+a;
a = b;
b = c;
cout <<" "<< c <<" ";
i++;
}
}
```

Output

```
/tmp/QMyBNXYjCz.o
Write Fibonacci Series for first n number = 2
0 1 1  2
```

15. WAP to check whether the number entered is palindrome or not.
Code:

```
#include <iostream>
using namespace std;
int main()
{
int x,y,z;
z=0;
cout <<"Enter Number ";
cin >> x;
int a = x;
while(x>0)
{
y = x%10;
x = x/10;
z = (z*10)+y;
}
if(a==z)
cout << "Plindrome Number";
else
cout << "Not a Palindrome";
}
```