1. Write a c++ program to find the given number is odd or even

```
#include <iostream>
using namespace std;

int main()
{
   int n;

   cout << "Enter an integer: ";
   cin >> n;

   if ( n % 2 == 0)
      cout << "Input number " << n << " is even ";
   else
      cout << "Input number " << n << " is odd ";

   return 0;
}
```

2. print numbers from 100 to 0 in reverse that are divisible by 3

Without divisible by 3

```
#include <iostream>

using namespace std;


void PrintReverseOrder(int N)

{


        for (int i = N; i >= 0; i--)

                cout << i << " ";


}


int main()
```

```
{
	int N = 100;

	PrintReverseOrder(N);

	return 0;
}
```

with reverse divisibl by 3: -

```
#include <iostream>
using namespace std;

void result(int N)
{

	for (int num = N; num >=0; --num)
	{
		if (num % 3 == 0)
			cout << num << " ";
	}
}


int main()
{
```

```
    int N=0;
    cout<<"Enter the number: ";
        cin>>N;


        result(N);
        return 0;
}
```

3. Get a string input (DNA) from user and print in reverse

```
#include <bits/stdc++.h>
using namespace std;

void reverse(string str)
{
        if(str.size() == 0)
        {
                return;
        }
        reverse(str.substr(1));
        cout << str[0];
}

int main()
{
        string a = "ATGCCCGATTTAAA";
        reverse(a);
        return 0;
}
```

4. Write a c++ program to add two matrices. (Variation : Ask the usere for size of matrix and get elements from user)

```
#include <iostream>

using namespace std;

int main()
```

```
{
   int a[100],b[100],n,sum[100];
   cout<<"Enter size of the matrices: ";
   cin>>n;
   cout<<"Enter matrix A: ";
   for(int i=0;i<n;i++)
   {

      cin>>a[i];
   }
   cout<<"Enter matrix B: ";
   for(int i=0;i<n;i++)
   {

      cin>>b[i];
   }
   for(int i=0;i<n;i++)
   {

      sum[i]=a[i]+b[i];
   }
   cout<<"Sum of matrices A and B is : ";
    for(int i=0;i<n;i++)
   {

      cout<<sum[i];
      cout<<"\n";
   }
   return 0;
}
```

5. Using switch create a program that perform desired arithmetic operations of two numbers(user input)

```
#include <iostream>
using namespace std;

int main() {
   char op;
   float num1, num2;

   cout << "Enter an arithemetic operator(+ - * /): ";
```

```
    cin >> op;
    cout <<"Enter 1st numbers= ";
    cin >> num1;
    cout<<"Enter 2nd number= ";
    cin>> num2;

    switch(op) {
      case '+':
          cout<<"Addition of two number: " << num1 << " + " << num2 << " = " << num1+num2;
          break;
      case '-':
          cout <<"Subtraction of two number: "<< num1 << " - " << num2 << " = " <<
num1+num2;
          break;
      case '*':
          cout <<"Multiplication of two number: " <<num1 << " * " << num2 << " = " <<
num1*num2;
          break;
      case '/':
          cout <<"Divide of two number: " <<num1 << " / " << num2 << " = " << num1/num2;
          break;
      default:
          printf("ERROR: Unsupported Operation");
    }

    return 0;
}
```

6. Create a function that takes two variables and find the power. (Eg: 2&5 will be 2^5)

```
#include <iostream>
using namespace std;

int main()
{
    int exponent;
    float base, result = 1;

    cout << "Enter base:  ";
    cin >> base;
    cout << "Enter exponent:  ";
    cin>> exponent;
```

```
    while (exponent != 0) {
        result *= base;
        --exponent;
    }

    cout << "Power of given number= "<< result;

    return 0;
}
```