1. Write a C++ Program to make a Simple Calculator to Add, Subtract, Multiply, or Divide Using switch...case.

   Code:

```cpp
#include <iostream>
#include<math.h>
using namespace std;

int main()
{
	float num1, num2;
	char op;
	cout << "Enter the first number: ";
	cin >> num1;
	cout << "Enter the second number: ";
	cin >> num2;
	cout << "Enter the operation you want to perform +,-,* or /: ";
	cin >> op;

	switch (op)
	{
	case '+':
		cout << "Addition of two numbers is: " << num1 + num2;
		break;
	case '-':
		cout << "Difference of two numbers is: " << num1 - num2;
		break;
	case '*':
		cout << "Multiplication of two numbers is: " << num1 * num2;
		break;
	case '/':
		cout << "Division of two numbers is: " << num1 / num2;
		break;
	default:
		cout << "Invalid Input!";
	}
	cout << endl;
	return 0;
}
```

   Output:

```
Enter the first number: 9
Enter the second number: 9
Enter the operation you want to perform +,-,* or /: *
Multiplication of two numbers is: 81
```

```
Enter the first number: 63
Enter the second number: 8
Enter the operation you want to perform +,-,* or /: /
Division of two numbers is: 7.875
```

2. Write a C++ program to print total number of days in a month using a switch case.

   Code:

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

int main()
{
```

```
int m;
cout << "Enter the month-number: ";
cin >> m;

switch (m)
{
case 1:
{
	cout << "January has 31 days!";
	break;
}
case 2:
{
	cout << "February has 28 days!";
	break;
}
case 3:
{
	cout << "March has 31 days!";
	break;
}
case 4:
{
	cout << "April has 31 days!";
	break;
}
case 5:
{
	cout << "May has 31 days!";
	break;
}
case 6:
{
	cout << "June has 30 days!";
	break;
}
case 7:
{
	cout << "July has 31 days!";
	break;
}
case 8:
{
	cout << "August has 31 days!";
	break;
}
case 9:
{
	cout << "September has 30 days!";
	break;
}
case 10:
{
	cout << "October has 31 days!";
	break;
}
case 11:
{
	cout << "November has 30 days!";
	break;
}
case 12:
{
```

```
                cout << "December has 31 days!";
                break;
        }
defualt:
        cout << "Invalid input!";
        }
        cout << endl;
        return 0;
}
```

Output:

```
Enter the month-number: 10
October has 31 days!
```

3. Write C++ program to take two integer values from user check if both values are equal or not, if both are not equal then print the greater value use nested if else.

Code:

```
#include <iostream>
#include<math.h>
using namespace std;

int main()
{
        float num1, num2;
        cout << "Enter the first value: ";
        cin >> num1;
        cout << "Enter the second value: ";
        cin >> num2;
        if (num1 == num2)
        {
                cout << "Both values are equal!";
        }
        else
        {
                if (num1 > num2)
                {
                        cout << "The first value is gretaer: " << num1;
                }
                else
                {
                        cout << "The second value is greater:" << num2;
                }
        }
        cout << endl;
        return 0;
}
```

Output:

```
Enter the first value: 77
Enter the second value: 88
The second value is greater:88
```

4. Write a C program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0 use nested if-else.

Code:

```
#include <iostream>
#include<math.h>
using namespace std;

int main()
{
	float m;
	cout << "Enter the value of m: ";
	cin >> m;
	if (m != 0)
	{
		if (m > 0)
		{
			cout << "m = 1";
	    }
		else
		{
			cout << "m = -1";
		}
	}
	else
	{
		cout << "m = 0";
	}
	cout << endl;
	return 0;
}
```

Output:

```
Enter the value of m: 13
m = 1
```

5. Write a C program to check whether a number is positive, negative or zero using switch case.

Code:

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

int main()
{
	int num;
	char ch;
	cout << "Enter any number: ";
	cin >> num;
	if (num > 0)
	{
		ch = '0';
	}
	else if (num < 0)
	{
		ch = '1';
	}
	else
	{
		ch = '2';
	}
	switch(ch)
	{
	case '0':
		cout << "Number is positive!";
```

```
            break;
        case '1':
            cout << "Number is negative!";
            break;
        case '2':
            cout << "Number is zero!";
            break;
        default:
            cout << "Invalid input!";
        }
        cout << endl;
        return 0;
}
```

Output:

```
Enter any number: -56
Number is negative!
```

6. Write a C program print total number of days in a month using switch case.
   Code:

   Output:

7. Write a C program to check whether an alphabet is vowel or consonant using switch case.
   Code:

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

int main()
{
        char ch;
        cout << "Enter any alphabet: ";
        cin >> ch;

        switch(ch)
        {
        case 'A':
            cout << "Alphabet is vowel!";
            break;
        case 'a':
            cout << "Alphabet is vowel!";
            break;
        case 'E':
            cout << "Alphabet is vowel!";
            break;
        case 'e':
            cout << "Alphabet is vowel!";
            break;
        case 'I':
            cout << "Alphabet is vowel!";
            break;
        case 'i':
            cout << "Alphabet is vowel!";
            break;
```

```
        case 'O':
                cout << "Alphabet is vowel!";
                break;
        case 'o':
                cout << "Alphabet is vowel!";
                break;
        case 'U':
                cout << "Alphabet is vowel!";
                break;
        case 'u':
                cout << "Alphabet is vowel!";
                break;
        default:
                cout << "Alphabet is consonant!";
        }
        cout << endl;
        return 0;
}
```

Output:

```
Enter any alphabet: a
Alphabet is vowel!
```

8. Check whether the number entered by the user is positive or not. If it is positive then calculate how many digits the number have.

Code:

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

int main()
{
        signed short int n;
        cout << "Enter any number: ";
        cin >> n;
        if (n > 0)
        {
                cout << "Number is positive!";
                if (n > 0 && n < 10)
                {
                        cout << "\nThe number have one digit!";
                }
                else if (n >= 10 && n < 100)
                {
                        cout << "\nThe number have two digit!";
                }
                else if (n >= 100 && n < 1000)
                {
                        cout << "\nThe number have three digit!";
                }
                else if (n >= 1000 && n < 10000)
                {
                        cout << "\nThe number have four digit!";
                }
                else
                {
                        cout << "\nThe number have five digit!";
                }
```

```
        }
        else
        {
                cout << "Number is not positive!";
        }

        cout << endl;
        return 0;
}
```

Output:

```
Enter any number: 9856
Number is positive!
The number have four digit!
```

9. Write a program that asks the user to input a two digit number (i.e. from 10-99), then prints the English word for the number. Make use of switch statement.

Code:

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

int main()
{
        int d, q, r;
        string s1, s2;
        cout << "Enter the two-digit: ";
        cin >> d;
        r = d % 10;
        q = d / 10;
        if (d >= 10 && d <= 19)
        {
                switch (d)
                {
                case 10:
                {
                        s1 = "ten";
                        break;
                }
                case 11:
                {
                        s1 = "eleven";
                        break;
                }
                case 12:
                {
                        s1 = "twelve";
                        break;
                }
                case 13:
                {
                        s1 = "thirteen";
                        break;
                }
                case 14:
                {
                        s1 = "fourteen";
```

```
                break;
        }
        case 15:
        {
                s1 = "fifteen";
                break;
        }
        case 16:
        {
                s1 = "sixteen";
                break;
        }
        case 17:
        {
                s1 = "seventeen";
                break;
        }
        case 18:
        {
                s1 = "eighteen";
                break;
        }
        default:
        {
                s1 = "ninteen";
        }
        }
        cout << "You have entered the number " << s1;
}
else
{
        switch (q)
        {
        case 2:
        {
                s1 = "twenty";
                break;
        }
        case 3:
        {
                s1 = "thirty";
                break;
        }
        case 4:
        {
                s1 = "fourty";
                break;
        }
        case 5:
        {
                s1 = "fifty";
                break;
        }
        case 6:
        {
                s1 = "sixty";
                break;
        }
        case 7:
        {
                s1 = "seventy";
                break;
        }
```

```
        case 8:
        {
                s1 = "eighty";
                break;
        }
        default:
        {
                s1 = "ninty";
        }
        }
        if (r != 0)
        {
                switch (r)
                {
                case 1:
                {
                        s2 = "one";
                        break;
                }
                case 2:
                {
                        s2 = "two";
                        break;
                }
                case 3:
                {
                        s2 = "three";
                        break;
                }
                case 4:
                {
                        s2 = "four";
                        break;
                }
                case 5:
                {
                        s2 = "five";
                        break;
                }
                case 6:
                {
                        s2 = "six";
                        break;
                }
                case 7:
                {
                        s2 = "seven";
                        break;
                }
                case 8:
                {
                        s2 = "eight";
                        break;
                }
                default:
                {
                        s2 = "nine";
                }
                }
        }
        cout << "You have entered the number " << s1 << " " << s2;
}
cout << endl;
```

```
        return 0;
}
```

Output:

```
Enter the two-digit: 15
You have entered the number fifteen
```

```
Enter the two-digit: 65
You have entered the number sixty five
```