C++ Assignment

1. Write a program in C++ to print welcome text on a separate line.

2. Write a program in C++ to print the sum of two numbers and swap them as well.

Sample Output:

Sum:

The sum of 29 and 30 is : 59

Swap:

Input 1st number : 25
Input 2nd number : 39
After swapping the 1st number is : 39
After swapping the 2nd number is : 25

3. Write a in C++ program to find the size of fundamental data types.

Sample Output:

The sizeof(char) is : 1 bytes
The sizeof(short) is : 2 bytes
The sizeof(int) is : 4 bytes
The sizeof(long) is : 8 bytes
The sizeof(long long) is : 8 bytes
The sizeof(float) is : 4 bytes
The sizeof(double) is : 8 bytes
The sizeof(long double) is : 16 bytes
The sizeof(bool) is : 1 bytes

4. Write a in C++ program to check the upper and lower limits of all the valid data types.

Expected Output:

The maximum limit of int data type : 2147483647
The minimum limit of int data type : -2147483648
Like wise…

5. Write a C++ program that calculates the volume of a sphere, cube & cylinder.

Expected Output:

Sphere:

Input the radius of a sphere : 6
The volume of a sphere is : 904.32

Cube:

Input the side of a cube : 5
The volume of a cube is : 125

Cylinder:

Input the radius of the cylinder : 6
Input the height of the cylinder : 8
The volume of a cylinder is : 904.32

6. Write a C++ program to find the
i) Area and Perimeter of a Rectangle.
ii) Area and Circumference of a Circle.
iii) Area of Triangle with Heron's formula.

Sample Output:

Rectangle:

Input the length of the rectangle : 10
Input the width of the rectangle : 15
The area of the rectangle is : 150
The perimeter of the rectangle is : 50

Triangle:

Input the length of 1st side of the triangle : 5
Input the length of 2nd side of the triangle : 5
Input the length of 3rd side of the triangle : 5
The area of the triangle is : 10.8253

Circle:

Input the radius(1/2 of diameter) of a circle : 5
The area of the circle is : 78.5397
The circumference of the circle is : 31.4159

7. Write a C++ program to convert temperature in Celsius to Fahrenheit and Kelvin.

Sample Output:

C -> F

Input the temperature in Celsius : 35
The temperature in Celsius : 35
The temperature in Fahrenheit : 95

C -> K

Input the temperature in Celsius : 26.85
The temperature in Celsius : 26.85
The temperature in Kelvin : 300

8. Write a C++ program to compute the quotient and remainder.

Sample Output:

Input the dividend : 25
Input the divisor : 3
The quotient of the division is : 8
The remainder of the division is : 1

9. Write a C++ program that takes a number as input and prints its multiplication table up to 10.

Sample Output:

Input a number: 5

5 x 1 = 5

5 x 2 = 10

5 x 3 = 15

5 x 4 = 20

5 x 5 = 25

5 x 6 = 30

5 x 7 = 35

5 x 8 = 40

5 x 9 = 45

5 x 10 = 50

10. Write a program in C++ that converts kilometers per hour to miles per hour before conversion you have to provide a check that the input number should not be zero or negative.

Sample Output:

Input the distance in kilometer : 25

The 25 Km./hr. means 15.5343 Miles/hr.