4.1 Operators

Write C++ programs to accomplish following each scenario separately. Don't use any control keywords (IF, ELSE, LOOP….). You must provide the full code for each question except Q10.

1. There is a rectangle. Length is 30 & breadth(width) is 10. Print area and perimeter of that rectangle.

2. User will enter Celsius value. Print Fahrenheit value. Then he will enter a length in meters. Print that value in feet and inches.

3. Ask user to enter the radius of a circle. Then calculate its perimeter and area & print on console. You must define a constant for Pie. (don't use standard library help)

4. There is a smaller box. Ask user to enter its attributes (length, width, height). Then calculate the volume of the box & print. The ask user to enter the big box attributes. Inform the user how many small boxes can be store in a big box. (Hint: Think of Division Operator behavior)

5. Write a program to enter the values of two variables from the keyboard. Then interchange the values of the two variables. Print values of those two variables before & after.

6. User will enter a number. You will add 10 to the number and then divide it by 3. Now, the modulus of that number is taken with 5 and then multiply the resultant value by 5. Display the result. Next, solve the above steps using assignment operators (eg. +=, -=, *=) for a new value.

7. User will enter marks for three subjects (each out of 100), write a program to calculate his total marks and percentage marks.

8. User will enter the values of two variables from keyboard. Then check first value is larger than 10 and first value is smaller than seconds value. (Use a Boolean variable to store the result & print it.) Ask third value from the user. Check if first value is less than 10 or large than 3rd value. Then print the result.

9. There are 45 students in a classroom & 25 are boys. 80% of the total students has passed the exam. Also, it says 2 girls are failed. Now find out how many boys has passed the exam.

10. By using 15 & 24, demonstrate all bit operations & calculate the result. You must write the answers in a paper describing each step. (decimal vale convert to binary, operation, result….) Verify the results using computer.