Practice problems on Arithmetic operation

Problem 1: Write a C program to input length and width of a rectangle and calculate perimeter and area of the rectangle.

Sample Input	Corresponding output
Enter length: 5 Enter width: 10	Area: 50 Perimeter: 30

Problem 2: Write a C program to input radius of a circle from user and find diameter, circumference and area of the circle.

Sample Input	Corresponding output
10	Diameter: 20 units Circumference: 62.79 units Area: 314 sq.units

Problem 3: Write a C program to input temperature in Centigrade and convert to Fahrenheit.

Sample Input	Corresponding output
100	212 F

Problem 4: Write a C program to input temperature in Fahrenheit and convert to Centigrade.

Sample Input	Corresponding output
205	96.11 C

Problem 5: Write a C program to input marks of five subjects of a student and calculate total, and average of all subjects.

Sample Input	Corresponding output
Enter marks of five subjects: 95 76 85 90 89	Total: 435 Average: 87

Problem 6: Write a C program that will take two integer inputs from a user. Then, it will swap the values of the variables and print the values.
Constraint: You can take only two integer variables for the whole program.
[Swapping values means interchanging values. For example, if your two variables num1 and num2 contain the values 5 and 7 respectively, then after swapping variable num1 will contain the value 7 and num2 will contain the value 5.]

Sample input	Corresponding Output
5 7	7 5
10 -4	-4 10

Problem 7: Write a C program that will take an integer number (the number will be non-negative and less than 1000) as input and print the digits of the number.
Constraint: You have to solve the problem using the topics that you have learnt in the theory class/sessional class.

Sample input	Corresponding Output
105	1 0 5
75	7 5
5	5

Problem 8: Suppose, you need to write a decimal to octal converter. Write a C program that will take an integer input (the value of the input will be non-negative and less than 512) from a user. Consider this number as the decimal one. Then, your program will convert the number into its octal form which will be saved in to a variable. Finally, the program will print this value.

Sample input	Corresponding Output
511	777
60	74
5	5