

## PW N°1

**Exercise 1.** Write a program in C that calculates the Area S of a circle of Radius R.

**Exercise 2.**

a. It's well known that exchanging the values of two variables requires a third intermediate variable. However, for integer numerical data, there is a way of avoiding the need for an additional variable. Write a program in C that allows you to swap two integers, without using an additional variable.

b. Write a C program to perform a circular permutation of the integer values of three variables x,y,z.

**Exercise 3.**

Write a C program that reads a value representing a sum of money and calculates and displays the number of 100 Dinars, 50 Dinars and 10 Dinars, and 2 Dinars and 1 Dinars coins it represents.

**Exercise 4.**

a. Code the algorithm that reads the 3 components of a time (hour, minute, second) from the keyboard, displays the time read in the format ***hour : minute : second*** and then displays the time that it will be 1 second later, in the same format.

b. Code the algorithm that reads a number of seconds from the keyboard and displays the corresponding time in hours, minutes and seconds.

c. Code an algorithm that gives the flight time in hours and minutes, knowing the departure and arrival times.

- ✓ Departure and arrival are assumed to take place on the same day.
- ✓ Assume that the flight time is less than 24 hours.

**Exercise 5.**

Write a C program that reads three positive non-zero numbers and displays them in ascending order.

**Exercise 6.**

Code the algorithm that calculates the sum and average of N integers entered by the user. The number N of integers must be entered by the user.