

Solutions to Exercise Series N°: 01

Exercise 1:

Answer true or false:

1. Microsoft is a computer manufacturing company. (False) *production of applications*
2. Facebook is made by a programming language. (True)
3. Data and programs are stored in files. (True)
4. We can design two different algorithms for the same problem. (True)
5. I am a good programmer; so I can design an algorithm for any mathematical problem. (False) *you need to know the solution method of the problem; there are problems that have no solutions; the solution method is not known until now*
6. Hard is more important than soft. (False) *They are complementary*
7. If the algorithm is wrong, the result is wrong. (False) *the result is random*
8. Algorithm testing is a very important phase in creating programs. (True)
9. Python is a European social network. (False) *programming language*
10. The pseudo-code may vary slightly from one book (or teacher) to another. (True)
11. There are algorithms that never end! (True)
12. An algorithm can be written in Arabic. (True)

Exercise 2 :

What property are we talking about in these phrases?

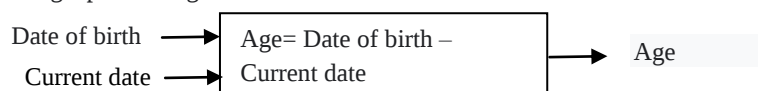
This recipe can be cooked in any type of oven (*independence; high level*)

- I tried this recipe but it only worked at over 90 degrees for 7 minutes (*precision*)
- Why does the chef insist on using a Calor oven? *independence; high level*
- It was written in the method to use 3000 grams of flour, but I read it incorrectly as 300 grams (*readability*)
- I can reach the same place on foot in about the same time without having to use public transportation (*complexity*)
- This process must be repeated 10 times to reach the desired result (*precision*)

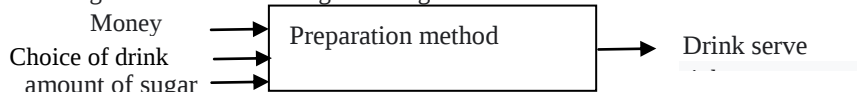
Exercise 3 :

Determine the inputs and outputs of the following algorithms by means of a diagram:

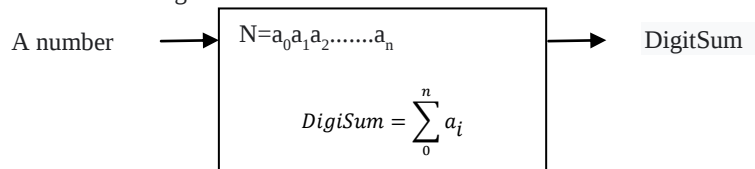
- Calculating a person's age.



- Getting coffee from a beverage vending machine.



- the sum of the digits of a number



- the binary representation of a decimal

