VE311 Electronic Circuits
Homework 01

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The course homework is intended for the students to learn and to think rather that just copy and paste. This is why, me and my TAs team are confident that you're going to learn.

1. Write a simple code in either Fortran or C/C++ to calculate the first 10 000 numbers after the decimal point for the follow set of irrational numbers:

   - π

   - e

2. Demonstrate algebraically that 1+1=2

3. By using the appropriate method, solve the follow circuits. The circuit of Figure 1, find the voltage that is passing through the inductor while $V_0(t) = 10$ V. As for Figure 2, calculate the current that is passing through the inductor while $V_0(t) = 1\angle 38 e^t$ V and $V_2 = 1$ V.
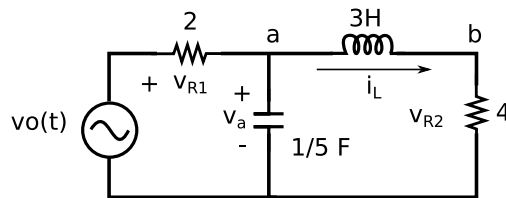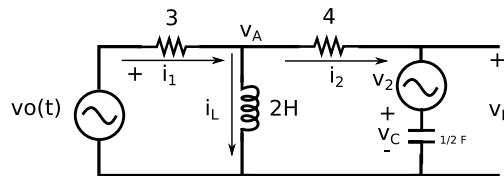

Figure 1: Circuit one

Figure 2: Circuit two

Submit a detailed report for each one for the sections. In particular, we're going to pay attention to the algorithms used for both π and e. So, explain them in detail and you should prove that your program runs to the TAs.