Quiz #3

1. Develop a flow chart, given two positive integers x and y, to compute x mod y
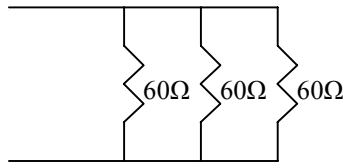
2. Write a C-language program which uses a function:

   int x_mod_y(int x, int y)

   to implement the flow chart you developed in question 1, above.
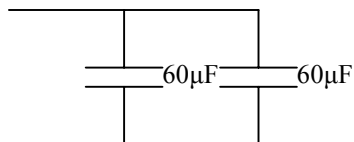
   Test your program (and print results) for the following three cases:

   i) 2 mod 2 ; ii) 25 mod 6 ; iii) 19 mod 24

3. Determine the equivalent (total) resistance of the following set of resistors.

   60Ω   60Ω   60Ω

4. Determine the equivalent (total) capacitance of the following set of capacitors.

   60µF   60µF

5. Determine the equivalent (total) inductance of the following set of inductors.

   60mH

   60mH

6. What is the difference between a microprocessor and a microcontroller?

7. Draw the flowchart that adds up all the odd numbers between 1 and 100.

8. What are the units of power? energy? (SI units please)

9. Typically, what is the amount of energy available from a AA NiCad battery?
   Compare the streangths/weaknesses of NiCad vs NiMH type batteries.