ECE 241 – HOMEWORK 1   Fall 2021

Due: Tuesday, September 9, 2021 at 11:00 PM on Moodle

Please answer the following questions. Submit all files required to answer the questions on Gradescope.
Note: Use Python 3 for the implementation of your code!

1. (**25 points**) Write a short Python program that converts the number of seconds into days, hours, minutes, seconds. E.g., for the input 100000 seconds the output should be 1 day, 3 hours, 46 minutes, 40 seconds. For the input 100 seconds the output should be 1 minute, 40 seconds.
    Note: Write the function as *timeConvert (input_second)* within a class named *Hw1Q1*. The function takes an integer as the input and returns the result output as a string. You should submit the file (named *question1.py*) to Gradescope.

2. (**25 points**) Write a class that contains two methods that *a)* solves the monomial for x in the form ax - 2b = c, where the user is asked to input a, b, and c; and b) solves a polynomial for x in the form $\sqrt{(ax + 2b)} = c$ where the user is asked to input a, b, c. Show a screenshot of the code working with monomial, x - 2 = 4 and also with the polynomial, $\sqrt{(x+2)} = 4$.

3. (**50 points**) Use the PyCharm debugger to fix syntax and logical errors in the tictactoe_error.py program you can find at:
    https://gist.github.com/mikezink/c0b0ac291f732eb06f64dd89c968624c

    Submit your fixed Python file. Include a screenshot of PyCharm stopped at a breakpoint in line 45. Also, include a screenshot of the program (including output) once the program has ended.