COP 4814 ASSIGNMENT 2 SPRING 2019

In pairs. Submit a pdf file per pair containing all the solutions for the following problems. Only Python 3 is allowed. Due on Feb 11 2019 at 11:59pm. Have fun!

Names: _____ PantherIDs: _____

1. Write a Python program that finds all numbers that are divisible by 7 but not a multiple of 5 between 2000 and 3201 (included).
2. Write a Python program that calculates the factorial of a certain number (input by user).
3. Write a Python program that generates a dictionary with the format $i : i * i$ given a certain integer number n (input by the user). For instance, if the user inputs 3, then the dictionary should have the following format: 1: 1, 2: 4, 3: 9.
4. Write a Python program that asks the user for their name and their age. Then, print out a message telling them the year that they will turn (or turned) 100 years old.
5. Write a Python program that asks the user for a certain number and then prints out a list of all the divisors of that number.
6. Write a Python program that given a list (example: a = [1, 4, 9, 16, 25, 36, 49, 64, 81, 100]), makes a new list that has only the even elements of this list in it. This should be done in one line of code (using list comprehension).
7. Given 2 lists, a and b, containing integers, not necessarily with the same length, Write a Python program that returns a list that contains only the elements that are common between the lists a and b (without duplicates).
8. Write a Python program to sum all the values (not keys) in a dictionary.
9. Write a Python program that calculates the moment (year, month and day) when someone has lived for 10^9 seconds.
10. Given a number n (user input), Write a Python program to determine if n is a prime.
11. Given a string, Write a Python program that: if the length of the string is at least 3, adds "ing" to its end. But, if it already ends in "ing", adds "ly" instead. And if the string length is less than 3, leaves it unchanged. Return the resulting string.
12. Write a Python program to get the ASCII value of a character.
13. Write a Python program that asks the user how many Fibonnaci numbers to generate and then generates them. Ask the user to enter the number of numbers in the sequence to generate.
14. Write a Python program that implement a function that takes as input three variables, and returns the largest of the three. Do this without using the Python $max()$ function! Hint: Use if statements.