Dictionary

1. Have a look at following tutorials:
    a. https://realpython.com/python-dicts/
    b. https://www.programiz.com/python-programming/dictionary
    c. https://www.w3schools.com/python/python_dictionaries.asp
    d. https://www.dataquest.io/blog/python-dictionary-tutorial/

2. Write a Python program to combine two dictionary adding values for common keys.
    d1 = {'a': 100, 'b': 200, 'c':300}
    d2 = {'a': 300, 'b': 200, 'd':400}
    Output = {'a': 400, 'b': 400, 'd': 400, 'c': 300}
3. Write a Python program to map lists (they should have equal length) into a dictionary.
4. Write a Python program to concatenate following dictionaries to create a new one.
    Dic1 = {1: 10, 2: 20}
    Dic2 = {3: 30, 4: 40}
    Dic3 = {5: 50, 6: 60}
    Output = {1: 10, 2: 20, 3: 30, 4: 40, 5: 50, 6: 60}
5. Write a Python program to generate and print a dictionary that contains a number (between 1 and n) in the form (x: x*x, x*x*x, sqrt(x), log(x), sin(x)). You should ask user to provide **n**.
6. Write a Python program to sum all the values in a dictionary.
7. Write a Python program to remove a key from a dictionary.
8. Write a Python program to get the maximum and minimum value in a dictionary.
9. Write a Python program to remove duplicates from Dictionary.
10. Suppose you have a dict: *a = {'n1': [2, 3, 1], 'n3': [5, 1, 2], 'n2': [0, 2, 4]}*.
    a. Write a Python program that sorts dict by keys.
    b. Write a Python program that sorts dict by the first element of dict values.
    c. Write a Python program that sorts dict by the second element of dict values.
    d. Write a Python program that sorts values in dict (you should sort lists, which are values).

You should send me the file with examples, file should be named: "name_surname_hw_5.py".