Dictionaries and Sets

1. Write a program in Python that asks the user to enter an integer n and return a dictionary whose keys are the integers 1, 2, 3, ... n and whose values are the sums 1, 1+ 2, 1 + 2 + 3,... 1 + 2 + 3 + ... + n. (Using Function and Dictionary)
2. Write a Python program that asks the user to enter a text and return a dictionary whose keys are the words of the text entered and the values are the lengths of the words that make up the text. Example for the text T = "Python is a programming language", the program must return the dictionary.
   d = {'Python': 6, 'is': 3, 'a': 3, 'language': 7, 'de': 2, 'programming': 13}
3. Write a Python program that asks the user to enter a text and return him a dictionary whose keys are the words of the text entered and the values are the reverse of the words that make up the text. Example for the text T = "Python is easy", the program must return the dictionary.
   d = {'Python': 'nohtyp', 'is': 'si', 'easy': 'ysae'}
4. Write a Python program that asks the user to enter a string, and return him a dictionary whose keys are the characters in the string entered and the values are the number of occurrences of the characters in the string. Example if the entered string is s = 'language', the program returns the dictionary.
   d = {'l': 1, 'a': 2, 'n': 1, 'g': 2, 'e': 1}

5. Write a python program that asks the user to enter an integer n and return a dictionary whose keys are integers 1, 2, 3, ... n and whose values are 1! , 2! , 3! , ... , n! (Using Function and Dictionary).