Python Problem Set - 2

1. WAP to display sum of digits of a given number; Use exception Handling to validate input
2. WAP to print all even integers divisible by 6 or 8 upto 100
3. WAP Calculate nPr; Use exception Handling to validate input. Take n and r as input from user and validate it
4. Given a string, return a version without the first and last char, so "Hello" yields "ell". The string length will be at least 2.
5. Given 2 strings, a and b, return a string of the form short+long+short, with the shorter string on the outside and the longer string on the inside. The strings will not be the same length, but they may be empty (length 0).
    - combo_string('Hello', 'hi') → 'hiHellohi'
    - combo_string('hi', 'Hello') → 'hiHellohi'
    - combo_string('aaa', 'b') → 'baaab'
6. Given a string, return a "rotated left 2" version where the first 2 chars are moved to the end. The string length will be at least 2.
    - left2('Hello') → 'lloHe'
    - left2('java') → 'vaja'
    - left2('Hi') → 'Hi'
7. Return True if the string "cat" and "dog" appear the same number of times in the given string.
    - cat_dog('catdog') → True
    - cat_dog('catcat') → False
    - cat_dog('1cat1cadodog') → True
8. The number 6 is a truly great number. Given two int values, a and b, return True if either one is 6. Or if their sum or difference is 6. Note: the function abs(num) computes the absolute value of a number. ; Use exception Handling to validate input
    - love6(6, 4) → True
    - love6(4, 5) → False
    - love6(1, 5) → True
9. Define a function generate_n_chars() that takes an integer n and a character c and returns a string, n characters long, consisting only of c:s. For example, generate_n_chars(5,"x") should return the string "xxxxx". (Python is unusual in that you can actually write an expression 5 *

"x" that will evaluate to "xxxxx". For the sake of the exercise you should ignore that the problem can be solved in this manner.)

10. WAP to map a list of words into a list of integers representing the lengths of the corresponding words use dictionary.
11. WAP that returns the number of even integers in the given list. Note: the % "mod" operator computes the remainder, e.g. 5 % 2 is 1 ; Use exception Handling to validate input
12. Read Customer.json file and answer the following questions
    - Retrieve “John”
    - Retrieve age of John
    - Print address in the following format: 21 2nd Street, New York,NY,Pincode: 10021
    - Retrieve all the phone numbers
    - Print the first name and lastname together
13. Read facebook.json file and answer the following questions
    - Retrieve name and message for id=X999_Y999
    - Retrieve created_time for id= X999_Y999
    - Retrieve all actions for name= Peyton Manning
    - Retrieve the links of like and comment for id= X18
    - Retrieve the created_time and updated_time for all dictionary key value pairs
14. Read Customer_Data.csv file and answer the following questions
    - Count the total number of rows in csv file
    - Count the number of male and female customers
    - Print the first name and last name together
    - Count the number of people starting with first name= “Diane”
    - Get email id for customer with id =38
    - Get the gender for customer with id = 45
    - Append few rows in csv file
15. Read Orders.csv file and answer the following questions
    - Calculate the total number of product
    - Calculate the total profit for product category office supplies
    - Calculate the profits for customer segment: Corporate
    - Print the customer name belonging to state: Washington
    - Print the various shipping mode
    - Generate a csv to get all the customer name, city, state and product name where Order priority is low