Assignment 2

Q1. Print sum of first 10 numbers

Q2. Enter a no and print whether its prime

Q3. Enter two ranges e.g. start 100 to stop 1000 and print all prime numbers between the two ranges.

Q4. Enter a no print sum of its digits

E.g. 4567

22

4

Q5. Print the sum of digits till you get a single number.

Q6. Print Fibonacci series up to given terms.

Q7. Enter 8 numbers, print their average.

Q8. Write a python program to print the square of all numbers from 0 to 10

Q9. Write a python program to find the sum of all even numbers from 0 to 10

Q10. Write a python program to read three numbers (a,b,c) and check how many

numbers between ‘a’ and ‘b’ are divisible by ‘c’

Q11.Enter a number and print its factorial

Q12. Write a program that takes a positive integer n as input and returns the sum of all that number's digits.

Q13.Write a python program to read a number and print the binary of that number (hint: if ‘a’ is a string , a[::-1] will be reverse of that string)

Q14. a, b, c = 0, 0, 0 . Write a python program to print all permutations using those three variables

Output : 000 , 001 ,002, 003, 004, 0005 ,006, 007, 008, 009, 010, 011 …… 999

Q15. Write a program to prompt the user for hours and rate per hour to compute gross pay. Take into account that the factory gives the employee 1.5 times the hourly rate for hours worked above 40 hours.

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Enter Hours: 45
Rate: 10
Pay: 475.0
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Q16.Pig Latin is a language game, where you move the first letter of the word to the end and add "ay." So "Python" becomes "ythonpay." To write a Pig Latin translator in Python, here are the steps we'll need to take:

- Ask the user to input a word in English.
- Make sure the user entered a valid word.
- Convert the word from English to Pig Latin.
- Display the translation result.

First define a variable called pygequal to "ay" and ask the user to enter a word. Save the results of raw_input () in a variable called original. Then add an if statement that checks that len(original) is greater than zero AND that the word the user enters contains only alphabetical characters (Note:isalpha() returns False since the string contains non-letter characters.).
If the string actually has some characters in it, print the user's word. Otherwise (i.e., an else: statement), please print "empty”. After those checks create a new variable called word that holds the .lower()-case conversion of original. Create a new variable called first that holds word [0], the first letter of word. Create a new variable called new word and set it equal to the concatenation of word, first, andpyg. Set new_word equal to the slice from the 1st index all the way to the end of new_word. Use[1:len(new_word)] to do this.

Q17. Write a program to prompt for a score between 0.0 and 1.0. If the score is out of range print an error. If the score is between 0.0 and 1.0, print a grade using the following table:

Score Grade

>= 0.9 A   >= 0.8 B   >= 0.7 C   >= 0.6 D   < 0.6 F

Q18. Write a program that ask for a number to the user and classifies it:

number <2 SMALL

number <10 MEDIUM

number rest LARGE

Q 19. Write a program that generates a random number (0-10) and ask you to guess it. You have three asserts.

- Define a random_number with randit between 0-10.
- Initialize guesses_left to 3.
- Use a while loop to let the user keep guessing so long as guesses_left is greater than zero.
- Ask the user for their guess, just like the second example above.
- If they guess correctly, print 'You win!' and break. Decrement guesses_left by one.
- Use an else: case after your while loop to print: You lose.

Q20. Write a program to find binary of a decimal number.