

## FUNCTIONS

### Program

#### Hint

1. "write a function that accepts inputs as two number and an operator (+,-,\*) and performs Operation on the given numbers "
2. "Define a function max() that takes two numbers as arguments and returns the largest of them.  
Use the if-then-else construct available in Python."
3. "Define a function max\_of\_three() that takes three numbers as arguments and returns the largest Of them."
4. "Write a function that takes a character (i.e. a string of length 1) and returns True if it is a vowel, False otherwise"
5. "Define a function sum() and a function multiply() that sums and multiplies (respectively) all the numbers in a list of numbers. For example, sum([1, 2, 3, 4]) should return 10, and Multiply([1, 2, 3, 4]) should return 24."
6. Define a function with a generator which can iterate the numbers, which are divisible by 7, between a given range 0 and n.
7. "Define a function is\_palindrome() that recognizes palindromes (i.e. words that look the same written Backwards). For example, is\_palindrome("radar") should return True."
8. " Define a menu driven function with choice of  
1) Add, 2) Subtract 3) Multiply 4) Divide 5) Quit.  
Add functions for addition, subtraction, multiplication, division, & Quit.  
In short implement your own calculator"
9. Write a function find\_longest\_word() that takes a list of words and returns the length of the longest one.
10. "Define a function that can accept two strings as input and print the string with maximum length in console. If two strings have the same length, then the function should print all strings line by line."
11. Given two int arrays. Write functions to find out common numbers and different numbers.
12. "Define a function that can accept an integer number as input and print the  
""It is an even number"" if the number is even, otherwise print ""It is an odd number""."
13. "Define a function which can print a dictionary where the keys are numbers between 1  
And 3 (both included) and the values are square of keys."
14. Define a function which can print a dictionary where the keys are numbers between 1 and 20  
(both included) and the values are square of keys.
15. Define a function which can generate and print a list where the values are square of numbers between 1 and 20 (both included).
16. Define a function which can generate and print a tuple where the value are square of numbers between 1 and 20 (both included).
17. Write a program to generate and print another tuple whose values are even numbers in the given tuple (1,2,3,4,5,6,7,8,9,10).
18. "Write a program to compute:  
 $f(n)=f(n-1)+100$  when  $n>0$   
and  $f(0)=1$   
with a given n input by console ( $n>0$ ).

Example:

If the following n is given as input to the program:5

"

Hint(Q18):

"Then, the output of the program should  
be:500"

19. "The Fibonacci Sequence is computed based on the following formula:

$f(n)=0$  if  $n=0$

$f(n)=1$  if  $n=1$

$f(n)=f(n-1)+f(n-2)$  if  $n>1$

Please write a program to compute the value of  $f(n)$  with a given n input by console.

Hint(Q19):"Example:

If

the following n is given as input to the  
program:

7

Then,

the output of the program should be:

13

20. Please write a program using generator to print the numbers which can

be divisible by 5 and 7 between 0 and n in comma separated form

while n is input by console.

Hint(Q20):"Example:

If the

following n is given as input to the program:

100

Then,

the output of the program should be:

0,35,70"

21. With a given list [12,24,35,24,88,120,155,88,120,155], write a program to print

this list after removing all duplicate values with original order reserved.

22. "Define a function max() that takes two numbers as arguments and returns the largest of them.

Use the if-then-else construct available in Python."

23. "Write func repeat(e, n). Args: e: any object , n: a number of times Returns: an

iterator producing

The element e n times"