

PYTHON – WORKSHEET 1

Answers have been highlighted in red

Q1 to Q8 have only one correct answer. Choose the correct option to answer your question.

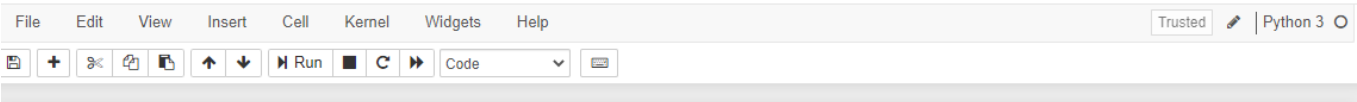
1. Which of the following operators is used to calculate remainder in a division?
A) # B) &
C) % D) \$
2. In python $2/3$ is equal to?
A) 0.666 **B) 0** C) 1 D) 0.67
3. In python, $6 << 2$ is equal to?
A) 36 B) 10
C) 24 D) 45
4. In python, $6 \& 2$ will give which of the following as output?
A) **2** B) True
C) False D) 0
5. In python, $6/2$ will give which of the following as output?
A) 2 B) 4
C) 0 **D) 6**
6. What does the finally keyword denotes in python? A) It is used to mark the end of the code
B) It encloses the lines of code which will be executed if any error occurs while executing the lines of code in the try block.
C) the finally block will be executed no matter if the try block raises an error or not.
D) None of the above
7. What does raise keyword is used for in python?
A) **It is used to raise an exception.** B) It is used to define lambda function
C) it's not a keyword in python. D) None of the above
8. Which of the following is a common use case of yield keyword in python?
A) in defining an iterator B) while defining a lambda function
C) in defining a generator D) in for loop.

Q9 and Q10 have multiple correct answers. Choose all the correct options to answer your question.

9. Which of the following are the valid variable names?
A) **_abc** B) 1abc
C) abc2 D) None of the above
10. Which of the following are the keywords in python?
A) yield **B) raise**
C) look-in D) all of the above

Q11 to Q15 are programming questions. Answer them in Jupyter Notebook.

11. Write a python program to find the factorial of a number.



Factorial

```
In [15]: #recursive function for calculation of factorial
def fact(f):

    if f== 1:
        return 1
    else:
        return (f * factorial(f-1))

# taking input from the user
num = int(input("Enter a number: "))

# callin the factorial function
result = fact(num)
print("The factorial of", num, "is", result)

Enter a number: 8
The factorial of 8 is 40320
```

12. Write a python program to find whether a number is prime or composite.

Prime or Composite

```
In [17]: #taking an input from the user
num= int(input("Enter any number :"))
if(num ==0 or num == 1):
    print(num,"Number is neither prime nor composite in nature")
elif num >1 :
    for i in range(2,num):
        if(num%i == 0):
            print(num,"is a composite number")
            break
    else:
        print(num,"is a prime number ")

Enter any number :21
21 is a composite number
```

13. Write a python program to check whether a given string is palindrome or not.

PALINDROME

```
In [5]: string=input(("Enter a string:"))
if(string==string[::-1]): #step value of -1 rverses the string
    print("The string is a palindrome")
else:
    print("The string is not a palindrome")

Enter a string:BENEB
The string is a palindrome
```

14. Write a Python program to get the third side of right-angled triangle from two given sides.

Finding The third side of a right anged triangle

```
In [6]: import math

base = float(input("Enter base: "))
height = float(input("Enter height: "))

hypotenuse= math.sqrt(base ** 2 + height ** 2)

print("Hypotenuse =", hypotenuse)

Enter base: 6
Enter height: 8
Hypotenuse = 10.0
```

15. Write a python program to print the frequency of each of the characters present in a given string.

Finding the frequency of each of the characters present in a given string

In [8]: *#the following program makes a listy of the frequency of letters in a word*

```
word = input("Enter a word")  
  
Alphabets = ['a','b','c','d','e','f','g','h','i','j','k','l','m','n','o','p','q','r','s','t','u','v','w','x','y','z']  
  
for i in range(0,26):  
    print(word.count(Alphabet[i]))
```

Enter a word Love You

0
0
0
0
1
0
0
0
0
1
0
0
0
0
0
2
0
0
0
0
0
1
1
0
0