

PYTHON – WORKSHEET 1

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) \$

Ans. %

2. In python 2//3 is equal to?

- A) 0.666
- B) 0
- C) 1
- D) 0.67

Ans. 0

3. In python, 6<<2 is equal to?

- A) 36
- B) 10
- C) 24
- D) 45

Ans. 24

4. In python, 6&2 will give which of the following as output?

- A) 2
- B) True
- C) False
- D) 0

Ans. 2

5. In python, 6|2 will give which of the following as output?

- A) 2
- B) 4
- C) 0
- D) 6

Ans. 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

Ans. the finally block will be executed no matter if the try block raises an error or not.

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

Ans. It is used to raise an exception.

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.

Ans. in defining a generator

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

Ans. abc,abc2

10. Which of the following are the keywords in python?

- A) yield
- B) raise
- C) look-in
- D) all of the above

Ans. yield, raise

Q11 and Q12

```
[1]: #11. Write a python program to find the factorial of a number

n=int(input('enter the number which factorial you want:'))
result = 1
for i in range(2, n + 1):
    result *= i

print('The Factorial of the given number is: ', result)

enter the number which factorial you want: 5
The Factorial of the given number is: 120

*[34]: #12. Write a python program to find whether a number is prime or composite.
n=int(input('enter the number: '))
if n <= 1:
    print("Neither prime nor composite")
for i in range(2, int(n**0.5) + 1):
    if n % i == 0:
        print("the given number is Composite")
    else:
        print("the given number is Prime")

enter the number: 1
Neither prime nor composite
```

Q13.



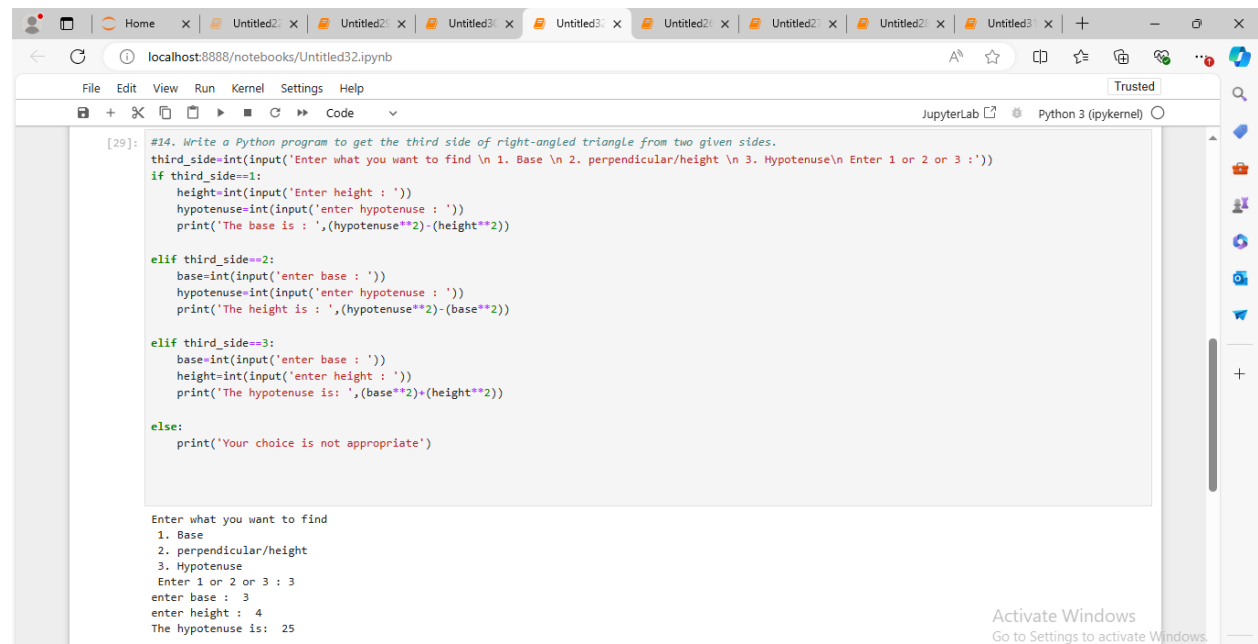
The screenshot shows a JupyterLab notebook with a single code cell. The code prompts the user to enter a number and a string, then checks if the string is a palindrome. The output shows the user entered '1' and 'Stuti', resulting in the message 'Neither prime nor composite' and 'No the given string is not a palindrome'.

```
[38]: #13. Write a python program to check whether a given string is palindrome or not.

str=input('enter any string')
str=str.lower()
if str==str[::-1]:
    print('Yes The Given string is a palindrome')
else:
    print('No the given string is not a palindrome ')

enter any string Stuti
No the given string is not a palindrome
```

Q14.



The screenshot shows a JupyterLab notebook with a single code cell. The code prompts the user to enter what they want to find (1. Base, 2. perpendicular/height, 3. Hypotenuse) and then the corresponding values. The output shows the user entered '1' for Base, '3' for perpendicular/height, and '4' for Hypotenuse, resulting in the message 'The hypotenuse is: 25'.

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[29]: #14. Write a Python program to get the third side of right-angled triangle from two given sides.
third_side=int(input('Enter what you want to find \n 1. Base \n 2. perpendicular/height \n 3. Hypotenuse\n Enter 1 or 2 or 3 :'))
if third_side==1:
    height=int(input('Enter height : '))
    hypotenuse=int(input('enter hypotenuse : '))
    print('The base is :',(hypotenuse**2)-(height**2))

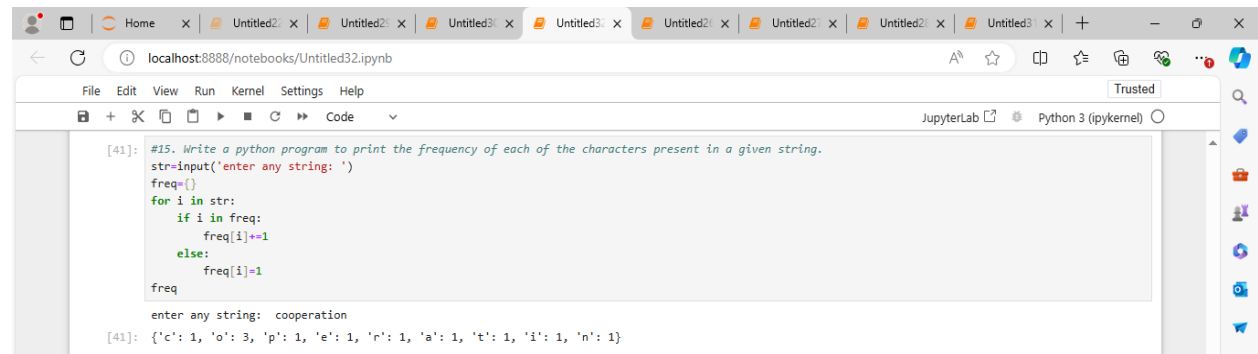
elif third_side==2:
    base=int(input('enter base : '))
    hypotenuse=int(input('enter hypotenuse : '))
    print('The height is :',(hypotenuse**2)-(base**2))

elif third_side==3:
    base=int(input('enter base : '))
    height=int(input('enter height : '))
    print('The hypotenuse is: ',(base**2)+(height**2))

else:
    print('Your choice is not appropriate')

Enter what you want to find
1. Base
2. perpendicular/height
3. Hypotenuse
Enter 1 or 2 or 3 : 3
enter base : 3
enter height : 4
The hypotenuse is: 25
```

Q15.



The screenshot shows a JupyterLab notebook with a single code cell. The code prompts the user to enter a string, then prints the frequency of each character. The output shows the user entered 'cooperation', resulting in the message 'The frequency of each character is: {'c': 1, 'o': 3, 'p': 1, 'e': 1, 'n': 1, 'a': 1, 't': 1, 'i': 1, 'r': 1}'.

```
[41]: #15. Write a python program to print the frequency of each of the characters present in a given string.

str=input('enter any string: ')
freq={}
for i in str:
    if i in freq:
        freq[i]+=1
    else:
        freq[i]=1
freq

enter any string: cooperation
[41]: {'c': 1, 'o': 3, 'p': 1, 'e': 1, 'n': 1, 'a': 1, 't': 1, 'i': 1, 'r': 1}
```

