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RMCA A 2020-2022

Program No. 1

16/01/2021

Aim:- Python Program to find area

Program

```
def area(a):
```

```
    Pi = 3.14
```

```
    return Pi * (a * a)
```

```
num = float(input("enter the value for:"))
```

```
print("Area is % of ", % area(num))
```

Result

The program has been executed and the output was verified

Output

enter the value for 3

Area is 28.26000

## Program No. 2

Aim: Python Program to find largest among three numbers.

## Program

```
num1 = float(input("enter the first number"))  
num2 = float(input("enter the second number"))  
num3 = float(input("enter the third number"))  
  
if (num1 > num2) and (num1 > num3):  
    largest = num1  
if (num2 > num1) and (num2 > num3):  
    largest = num2  
else:  
    largest = num3  
print("the largest number is", largest)
```

## Result

The program has been executed and the output was verified.

## Output

enter the first number : 7

enter the second number : 4

enter the third number : 8

The largest number is 8

16/01/2021

Program No. 3

Aim:- Python program to find square of a number

Program

```
digit = int(input("enter an integer number"))
```

```
sq = digit * digit
```

```
print("square of {digit} is {sq}")
```

Result

The program has been executed and the output was verified

Output

Enter an integer number : 4

square of 4 is 16

26/01/2021

Program No. 4

Aim:- Python Program to find area of circle  
Program

```
from math import pi
```

```
a = float(input("the radius of circle"))
```

```
print("The area of the circle is" + str(pi*a**2))
```

Result

The program has been executed and the output was verified.



Output

input the radius of the circle : 4

The area of the circle is 50.2654

26/01/2021

Program No. 5

Aim :- Python program to find square of n

Program

```
a = [14, 20, 13, 8, 6, 2]
```

```
for n in a:
```

```
    sq = n**n
```

```
    print(n, "squared is", sq)
```

Result

The program has been executed and the output was verified

# Output

14 squared is 196

20 squared is 400

13 squared is 169

8 squared is 64

6 squared is 36

2 squared is 4

26/01/2021

Program No. 6

Aim:- Python program to find vowels in string

Program

```
str = "Hello How are You"
```

```
print("Given string", str)
```

```
vowels = "AaEeIiOoUu"
```

```
out = set([each for each in str if each  
in vowels])
```

```
print("The vowels present in the string:", out)
```

Result

The program has been executed and the output was verified.

Output

Given string:

Hello How are You

The vowels present in the string: {'u', 'a', 'e', 'o'}

26/01/2021

Program No. 7

Aim: Python program to count words in sentence

Program

```
def word_count(str):  
    counts = dict()  
    words = str.split()
```

```
    for word in words:  
        if word in counts:  
            counts[word] += 1  
        else:  
            counts[word] = 1
```

```
    return counts
```

```
print(word_count("Every person has a  
responsibility towards the society he lives"))
```

Result

The program has been executed and the output was verified

Output

{ 'when': 1, 'you': 2, 'change': 2, 'the': 2,

'quality': 2, 'of': 2, 'your': 2, 'thinking': 1,

'life': 1, 'sometimes': 1, 'instantly': 1 }

Program No. 8

26/01/2021

Aim : Python program to count 'a' in a list

Program

```
a = ["antony", "ram", "rohan", "scaria"]
```

```
str1 = (' '.join(a))
```

```
count = 0
```

```
for i in str1:
```

```
    if i == 'a':
```

```
        count = count + 1
```

```
print("count of a in the list is" + str(count))
```

Result

The program has been executed and the output was verified



Output

Count of a in the list : 5

Program No. 9

26/01/2021

Aim:- Python program to check the length of lists

```
list 1 = [10, 10, 11, 12, 12, 13, 14, 16, 15, 16, 12]
```

```
list 2 = [16, 12, 13, 14, 15, 16, 10, 11, 12, 10, 12]
```

```
len 1 = len(list 1)
```

```
len 2 = len(list 2)
```

```
if (len 1 == len 2)
```

```
    print('both list have equal length')
```

```
else:
```

```
    print('both list doesn't have equal length')
```

Result

The program has been executed and the output was verified.

Output

both list have equal length

26/01/2021

Program No. 10

Ques: Python program to check the sum of lists

Program

```
list1 = [10, 10, 11, 12, 12, 13, 14, 15, 16, 12]
```

```
list2 = [16, 12, 13, 14, 15, 16, 10, 11, 12, 10, 12]
```

```
total1 = sum(list1)
```

```
total2 = sum(list2)
```

```
if total1 == total2:
```

```
    print('both list have equal sum')
```

```
else:
```

```
    print('both list doesn't have equal sum')
```

Result:

The program has been executed and the output was verified.

Output

both list have equal sum

(1 2 3) sum = 6

(3 2 1) sum = 6

(3 1 2) sum = 6

(1 2 3) sum = 6 (3 2 1) sum = 6

(3 1 2) sum = 6 (2 3 1) sum = 6

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Program No. 11

Aim: Python program to check the common elements in the lists.

Program

```
list1 = [10, 10, 11, 12, 12, 13, 14, 16, 15, 16, 12]
```

```
list2 = [10, 10, 11, 12, 12, 16, 14, 16, 15, 19, 12]
```

```
for value in list1:
```

```
    if (value in list2:
```

```
        common = 1
```

```
    if common == 1:
```

```
        print("there are common elements")
```

```
    else:
```

```
        print('no common elements')
```

Result

The program has been executed and the output was verified.

Output

there are common elements

27/01/2021

Program No.12

Aim: Python program to replace a character

Program

```
def change_char(str1):
```

```
    char = str1[0]
```

```
    str1 = str1.replace(char, '$')
```

```
    str1 = char + str1[1:]
```

```
print(change_char('refresh'))
```

Result

The program has been executed and the output was verified.



Output

refresh

27/01/2021

Program No. 13

Ques: Python program to exchange the first and last letter in a string

Program

```
def change_string(str1):  
    return str1[-1:] + str1[1:-1] + str1[:1]  
  
print(change_string('pineapple'))
```

Result

The program has been executed and the output was verified.

Output

eineappl

11.11.2019

Lösung

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27/01/2021

Program No.14

Aim :- Python program to merge 2 dictionaries

Program

```
def Merge(dict1, dict2):  
    return (dict2.update(dict1))
```

```
dict1 = {'a':10, 'b':8}
```

```
dict2 = {'d':5, 'c':2}
```

```
print(Merge(dict1, dict2))
```

```
print(dict2)
```

Result

The program has been executed and the output was verified.

Output

None

{'d': 5, 'c': 2, 'a': 10, 'b': 8}

Program No.15

27/01/2021

Aim: Python program to ascend and descend dictionary

Program

```
import operator
```

```
d = {1:2, 3:4, 4:3, 2:1, 0:0}
```

```
print('original dictionary:', d)
```

```
sorted_d = sorted(d.items(), key=operator.itemgetter(1))
```

```
print('Dictionary in ascending order by value:',  
      sorted_d)
```

```
sorted_d = dict(sorted(d.items(),  
                      key=operator.itemgetter(1), reverse=True))
```

```
print('Dictionary in descending order  
by value:', sorted_d)
```

Result

The program has been executed and the output was verified

## Output

Original dictionary:  $\{1:2, 3:4, 4:3, 2:1, 0:0\}$

Dictionary in ascending order by value:

$[(0, 0), (2, 1), (1, 2), (4, 3), (3, 4)]$

Dictionary in descending order by value:

$\{3:4, 4:3, 1:2, 2:1, 0:0\}$

Program No. 16

27/01/2021

Aim: Python program to remove even numbers from the list

Program

```
list = [11, 22, 33, 44, 55, 66, 77, 88, 99]
```

```
print(list)
```

```
for i in list:
```

```
    if (i%2==0)
```

```
        list.remove(i)
```

```
print("the list after removing:", list)
```

Result

The program has been executed and the output was verified



Output

[11, 22, 33, 44, 55, 66, 77, 88, 99]

the list after removing: [11, 33, 55, 77, 99]

Program No. 17

27/01/2021

Aim: Python program to find gcd of numbers

```
def gcd(a, b):
```

```
    if (b == 0):
```

```
        return a
```

```
    return gcd(b, a % b)
```

```
a = 45
```

```
b = 65
```

```
if (gcd(a, b)):
```

```
    print('gcd of', a, 'and', b, 'is', gcd(a, b))
```

```
else:
```

```
    print('not bound')
```

Result

The program has been executed and the output was verified.

Output

GCD of 45 and 65 is 5

Program No.18

03/02/2021

Aim: Python program to find factorial of a number

```
num = int(input("Enter a number:"))
```

```
factorial = 1
```

```
if num < 0:
```

```
    print("sorry, factorial does not exist  
        for negative number")
```

```
elif num == 0:
```

```
    print("The factorial of 0 is 1")
```

```
else:
```

```
    for i in range(1, num+1):
```

```
        factorial = factorial * i
```

```
    print("The factorial of," num, "is", factorial)
```

Result

The program has been executed and the output was verified

Output.

Enter a number : 5

The factorial of 5 is 120

Program No. 19

03/02/2021

Aim: Python program to find Fibonacci sequence

```
def recur_fibo(n):  
    if (n <= 1):  
        return n  
    else:  
        return (recur_fibo(n-1) + recur_fibo(n-2))  
  
nterms = int(input("How many terms?"))  
  
if nterms <= 0:  
    print("please enter a positive integer")  
else:  
    print("Fibonacci sequence:")  
    for i in range(nterms):  
        print(recur_fibo(i))
```

Result

The program has been executed and the output was verified.

Output

How many terms? 4

Fibonacci sequence:

0

1

1

2

Program No. 20

03/02/2021

Aim: Python program to perform string function

```
def add_string(str1):  
    length = len(str1)  
    if length > 1:  
        if str1[-3:] == "ing":  
            str1 += 'ly'  
        else:  
            str1 += 'ing'  
    return str1  
  
print(add_string('do'))  
print(add_string('according'))
```

Result

The program has been executed and  
the output was verified



Output

doing

accordingly

Program No. 21

03/02/2021

Aim: Python program to perform the sum of given items

```
numbers = [1, 2, 3, 4, 5, 2, 5]
```

```
sum = sum(numbers)
```

```
print(sum)
```

Result

The program has been executed and the output was verified

Output

22

(1st) find all

(1st) min. value

from the

"B" = [1, 2, 3, 4, 5]

"A" = [1, 2, 3, 4, 5]

25th

1st 1st

1st 1st

1st 1st

1st 1st 1st 1st

1st 1st 1st 1st