

1. Write a Python program to find the area of a rectangle
Output:
Enter the Length of Rectangle : 5
Enter the Breadth of Rectangle : 4
Area of Rectangle : 20
2. Rahul's basic salary is input through the keyboard. His dearness allowance is 50% of basic salary and house rent allowance is 30% of basic salary. Write a python program to calculate his total salary.
3. Write a Python program to find the area of a right angled triangle
Output:
Enter height of the given triangle:10
Enter width of the given triangle: 15
Area of right angled triangle is: 75.000
4. Write a Python program to find the area of an equilateral triangle
Output:
Enter size of side of the equilateral triangle: 5
Area of equilateral triangle is: 10.825
5. Write a Python program to find the volume and surface area of a cube
Output:
Enter the length of a side :34
Surface area = 6936.00 and Volume = 39304.00
6. Write a Python program to find the volume and surface area of cone
Output:
Enter value of radius of a cone : 6
Enter height of a cone :9
Surface area of cone is: 302.700
Volume of cone is : 324.000
7. Write a Python Program to calculate Simple Interest.
Output:
Enter the values of principal_amt:12
Enter the values of rate:10
Enter the values of time:5
Amount = Rs. 12.00
Rate = Rs. 10.00%

Time = 5 years

Simple interest = 6.00

8. python program to calculate area and perimeter of circle.

Sample I/O

Enter the radius:

15.50

Area of circle:754.7676350249478

Perimeter of circle:97.38937226128358

9. Write a program that asks the user to enter a distance in kilometers and then prints out how far that distance is in miles. There are 0.621371 miles in one kilometer.

Sample I/O:

How many kilometers?: 5.5

5.500 kilometers is equal to 3.418 miles

10. Write a python program to calculate roots of Quadratic Equation for all the cases.

Output:

Enter coefficients a: 4

Enter coefficients b:5

Enter coefficients c:1

Roots are real and different.

x1 = -0.25

x2 = -1

11. Write a Python Program to display all numbers between 1 and 10 using for loop.

Output:

1

2

3

4

5

6
7
8
9
10

12. Write a Python program to find the sum of first 50 natural numbers.

Output:Sum = 1275

13. Write a 'Python' program to accept age from user and print Eligible for voting or not.

Output:

Enter the age : 20

The person is eligible to vote.

Enter the age : 16

The person is not eligible to vote.

14. Write a 'Python' program to accept age and percentage from user and print Qualified if his age \leq 25 and per \geq 75 otherwise not qualified.

Output:

Enter the age : 22

Enter the per : 78

The person is Qualified

Enter the age : 26

Enter the per : 56

The person is Not Qualified

15. Write a 'Python' program to accept any number from user and print it is even or odd.

Output:

Enter an integer: 7

7 is odd.

16. Write a 'Python' program to accept any character from user and print it is Vowel or Consonant.

Output:

Enter an alphabet: G

G is a consonant.

Enter an alphabet: A

A is a vowel.

17. Write a 'Python' program to accept any Key from user and print it is alphabet or number.

Output:

Enter a character: a

a is an alphabet

Enter a character: 7

7 is a number

18. Write a 'Python' program to print biggest of three numbers.

Output:

Enter the values of num1:6

Enter the values of num2:8

Enter the values of num3: 10

num3 is the greatest among three

19. Write a 'Python' program to accept two numbers and check 1st number is greater, 2nd number is greater or both are equal.

Output:

Enter the first number:5

Enter the second number:7

7 is greater than 5

5 and 7 are not equal

20. Write a 'Python' program using conditional operators to determine whether a year entered through the keyboard is a leap year or not.

Input year: 2016

Output:2016 is Leap Year

21. Write a 'Python' program to accept three numbers from user and print it in ascending order.

Output:

Enter the numbers:4 78 8

Numbers in Ascending Order: 4 8 78

22. Python Program to Check Whether a Number is Positive or Negative or Zero.

Output:

Enter a number:

-3

-3 is a negative number

Enter a number:

100

100 is a positive number

23. Write a Python program to accept a coordinate point in a XY coordinate system and determine its quadrant.

Output:

Enter the values for X and Y

20 30

point lies in the First quadrant

Enter the values for X and Y

-30 -60

point lies in the Third quadrant

24. Write a Python program to find the square of a number only if its LSB is 5.

Output:

Enter a number: 25

Square =625

25. While purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 1000. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses. Using simple if statement.

Output:

Enter quantity and rate 1200 15.50

Total expenses = Rs. 16740.000000

Enter quantity and rate 200 15.50

Total expenses = Rs. 3100.000000

26. The Basic salary current year and the year in which the employee joined the organization are entered through the keyboard. If the number of years for which the employee has served the organization is greater than 3 then a bonus of Rs. 2500/- is given to the employee. If the years of service are not greater than 3, then no bonus will be given. And print the total salary.

Output:

Enter the basic salary:1000

Enter the current year:2018

Enter the year of joining:2011

Toatal salary:12500

27. Write a python program that prints the numbers from 1 to 50. But for multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".
28. Write a python Program to read amount in rupees. If amount is ≥ 300 print idly, vada, dosa and puri followed by glass of water. printing of glass of water is mandatory.
29. Write a 'Python' program to output first 20 natural numbers.
Output:
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 10
30. Program display first n terms of Fibonacci series
Output:
The Fibonacci sequence: 0, 1, 1, 2, 3, 5, 8, 13, 21, ...
31. Write a program to output n natural numbers in reverse order
Output:
Natural numbers from 10-1 in reverse:
10, 9, 8, 7, 6, 5, 4, 3, 2, 1
32. Write a program to print sum of n natural numbers
Output:
Enter a positive integer: 100
Sum = 5050
33. Write a program to enter the numbers till the user wants and at the end it should display the count of positive and negative entered.
Output:
Enter the number: 10 20 40 30 -4 -16
Positive number: 4
Negative number: 2
34. Write a 'Python' program to accept the number and print its mathematical table.
Output:
Enter an integer: 9
 $9 * 1 = 9$

$$9 * 2 = 18$$

$$9 * 3 = 27$$

$$9 * 4 = 36$$

$$9 * 5 = 45$$

$$9 * 6 = 54$$

$$9 * 7 = 63$$

$$9 * 8 = 72$$

$$9 * 9 = 81$$

$$9 * 10 = 90$$

35. Write a 'Python' Program to read any integer number and check whether it is prime or not prime

Output:

Enter a positive integer: 29

29 is a prime number.

36. Write a program to find the number of and sum of all integers greater than 100 and less than 200 that are divisible by 7

Output:

sum = 2107

37. Write a 'Python' program to print all ODD numbers between 1-25 and also print count.

Output:

1

3

5

7

9

11

13

15

17

19

21

23

25

Sum:169

38. Python Program: read the age of 20 persons and count the number of persons in the age group 50 -60

Output:

Enter Person 1 age:53

Enter Person 2 age:67

Enter Person 3 age:34

Enter Person 4 age:34

Enter Person 5 age:5

Enter Person 6 age:66

Enter Person 7 age:55

Enter Person 8 age:34

Enter Person 9 age:77

Enter Person 10 age:78

Enter Person 11 age:32

Enter Person 12 age:65

Enter Person 13 age:34

Enter Person 14 age:12

Enter Person 15 age:34

Enter Person 16 age:8

Enter Person 17 age:78

Enter Person 18 age:89

Enter Person 19 age:56

Enter Person 20 age:45

Number of person between age 50 - 60 :3

39. Write a 'Python' program to accept a positive integer from user and print it in reverse order.

Output:

Enter a number:45242

Reverse is:24254

40. Write a 'Python' program to check number is Armstrong number or not.

Output:

Enter a three digit integer: 371

371 is an Armstrong number.

41. Write a 'Python' Program to Check Whether Given Number is Perfect or Not?

Output:

Enter an integer number: 6

6 is a perfect number.

Enter an integer number: 496

496 is a perfect number.

Enter an integer number: 695

695 is not a perfect number.

42. Write a 'Python' program to display all Armstrong number between 101 to 999.

Output:

Armstrong number between 101 to 999

153

370

371

407

43. Write a 'Python' Program to find the Sum of Series $1 + 1/2 + 1/3 + 1/4 + \dots + 1/N$

Output:

enter the number 4

$1 + (1/2.000000) + (1/3.000000) + (1/4.000000)$

The sum of the given series is 2.08

44. Write a 'Python' Program to find the Sum of Series $X^1/1 + X^2/2 + X^3/3 + X^4/4 + \dots + X^n/n$

Output:

Input : base = 2, range = 5

Output : 18.07

Input : base = 1, range = 10

Output : 3.93

45. Write Python Program to Find Sum of the Series $1/1! + 2/2! + 3/3! + \dots + 1/N!$

Output:

46. Write a Python program to calculate the following Sum:

$\text{Sum} = 1 - x^2/2! + x^4/4! - x^6/6! + x^8/8! - x^{10}/10!$

Output:

ENTER VALUE OF X : 4

SUM : -0.685785

47. Write a Python program to construct the following pattern

```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

48. Write a Python program to construct the following pattern

```
1
2 1
3 2 1
4 3 2 1
5 4 3 2 1
6 5 4 3 2 1
7 6 5 4 3 2 1
8 7 6 5 4 3 2 1
```

49. Program display following Pattern

```
1
2 3
4 5 6
7 8 9 10
```

50. Write a Python program to construct the following pattern

```
1
2 1
4 2 1
8 4 2 1
16 8 4 2 1
32 16 8 4 2 1
64 32 16 8 4 2 1
```