

1. Write a Python program which accepts the radius of a circle from the user and compute the area
2. Write a Python program to check if a number is positive, negative or zero
3. Write a Python function to check whether a number is completely divisible by another number. Accept two integer values from the user
4. Write a Python program that accepts an integer (n) and computes the value of $(n + nn + nnn)$
5. Write a Python program to calculate number of days between two dates
6. Write a Python program to get the volume of a sphere, please take the radius as input from user. $V = \frac{4}{3} \pi r^3$
7. Write a Python program to get the difference between a given number and 17, difference cannot be negative
8. Write a Python program to get a new string from a given string where "Is" has been added to the front. If the given string already begins with "Is" then return the string unchanged
9. Write a Python program to get a string which is n (non-negative integer) copies of a given string
10. Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user.
11. Write a Python program to test whether a passed letter is a vowel or not
12. Write a Python program that will accept the base and height of a triangle and compute the area (<https://www.khanacademy.org/math/basic-geo/basic-geo-area-and-perimeter/area-triangle/a/area-of-triangle>)
13. Write a Python program that will return true if the two given integer values are equal or their sum or difference is 5.
14. Write a Python program to solve $(x + y) * (x + y)$
15. Write a Python program to compute the future value of a specified principal amount, rate of interest, and a number of years.
16. Write a Python program to compute the distance between the points (x1, y1) and (x2, y2). https://en.wikipedia.org/wiki/Euclidean_distance
17. Write a Python program to convert height (in feet and inches) to centimetres.
18. Write a Python program to calculate the hypotenuse of a right angled triangle
19. Write a Python program to convert the distance (in feet) to inches, yards, and miles. 1 foot = 12 inches, 3 feet = 1 yard, 5280 feet = 1 mile
20. Write a Python program to convert all units of time into seconds.
21. Write a Python program to convert seconds to day, hour, minutes and seconds.
22. Write a Python program to calculate body mass index. (<https://www.thecalculatorsite.com/articles/health/bmi-formula-for-bmi-calculations.php>)
23. Write a Python program to convert temperatures to and from Celsius, Fahrenheit

(Practice After Loops have been discussed)

24. Write a python program to sum of the first n positive integers
25. Write a Python program to calculate the sum of the digits in an integer
26. Write a Python program to convert an integer to Binary, Octal and Hexadecimal numbers
27. Write a program to convert binary number to Decimal number
28. Write a program to convert Octal number to Decimal number
29. Write a program to convert Hexadecimal number to Decimal number
30. Write a Python program to count the number occurrence of a specific character in a string
31. Write a Python program to compute the greatest common divisor (GCD) of two positive integers. (https://en.wikipedia.org/wiki/Euclidean_algorithm)

32. Write a Python program to get the least common multiple (LCM) of two positive integers (https://en.wikipedia.org/wiki/Least_common_multiple)
33. Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them (Practice After Loops has been discussed)
34. Input a text and count the occurrences of vowels and consonant
35. Write a Python program to find the number of notes (Sample of notes: 10, 20, 50, 100, 500, and 1000) against an given amount
36. Write a program to check whether given input is palindrome or not
37. Write a Python program to reverse the digits of a given number and add it to the original, If the sum is not a palindrome repeat this procedure
38. Write a Python program to get the Fibonacci series between 0 to 50
39. Write a Python program to create the multiplication table (from 1 to 10) of a number
40. Write a Python program that accepts a string and calculate the number of digits and letters
Sample Data : Python 3.2, Expected Output : Letters 6, Digits 2
41. Write a Python program to construct the following pattern, using a nested for loop

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

42. Write a Python program to construct the following pattern, using a nested for loop

```
1  
1 2  
1 2 3  
1 2 3 4  
1 2 3 4 5  
1 2 3 4  
1 2 3  
1 2  
1
```

43. Write a Python program to construct the following pattern, using a nested loop number.

1

22

333

4444

55555

666666

7777777

88888888

999999999

44.