

# All-Questions

## Practice 1

1. Write a program that prints "Hello World" on the console
2. Write a function that takes two numbers as input and prints their sum
3. Write a function that calculates and prints the area of a rectangle given its length and width

## Practice 2

4. Write a function that tells if a given number is even or odd
5. Write a function that finds and prints the smallest number among three given numbers.

## Practice 3

6. Write a function that returns the reverse of a string

## Practice 4

7. Write a function that calculate factorial of a given number

## Practice 5

8. Write a function that tells if provided year is a leap year or not

## Practice 6

9. Write a function that calculates and prints the sum of digits of a given number

## Practice 7

10. Write a function that generates and prints a multiplication table for a given number up to a specific range

## Practice 8

11. Write a function that finds and prints the maximum element in an array of numbers

## Practice 9

12. Write a function that checks if a string is palindrome or not

## Practice 10

13. Write a function that returns the result of raising a given number to a specified power

## **Practice 11**

14. Write a function that counts and prints the number of vowels and consonants in a given string

## **Practice 12**

15. Write a function that finds all the factors of a given number.

## **Practice 13**

16. Write a function that calculates and returns the average of a set of numbers.

## **Practice 14**

17. Write a function that calculates and prints the simple interest on a loan amount.

## **Practice 15**

18. Write a function that tells if the given number is prime or not. (Optimized Version)

## **Practice 16**

19. Write a function that counts and returns the number of words in a sentence.

## **Practice 17**

20. Write a function that converts a temperature in Celsius to Fahrenheit.

## **Practice 18**

21. Write a program that swap two numbers

## **Practice 19**

22. Write a program that checks if a number is Armstrong or not

## **Practice 20**

23. Write a program that prints numbers from 1 to N replacing

- multiple of 3 with "Fizz"
- multiple of 5 with "Buzz"
- multiple of both 3 & 5 with "FizzBuzz"

## **Practice 21**

24. Write a program that prints a number pyramid

## **Practice 22**

25. Write a program that counts the occurrences of each character in a given string

## **Practice 23**

26. Write a program that checks if a given string is in alphabetical order.

## **Practice 24**

27. Write a program that checks if two given strings are anagrams of each other

## **Practice 25**

28. Write a program that transposes a given matrix (swaps rows and columns)

## **Practice 26**

29. Write a program that checks if a given number is a perfect number.

## **Practice 27**

30. Write a program that checks if the provided password is strong or not.

- Minimum 8 characters
- One small case character (a-z)
- One big case character (A-Z)
- One number 0-9
- One special character (!@)

## **Practice 28**

31. Write a program that multiplies two matrices and returns the result

## **Practice 29**

32. Write a program that calculates the tip amounts based on the bill total and percentages entered by the user (Tip Calculator)

## **Practice 30**

33. Write a program to find and count all palindromic substrings within a given string.

## **Practice 31**

34. Write a program that checks if a given string of parentheses is balanced and well formed.

## **Practice 32**

35. Write a program that finds all occurrences of a given word in a big string.

- Example: Find word "big"

## **Practice 33**

36. Write a program that generates a random number

37. Write a program that takes input from the user

## **Practice 34**

38. Write a program that simulates rolling a dice

## **Practice 35**

39. Write a program that creates a basic alarm clock

## **Practice 36**

40. Write a program that builds a number guess game.

## **Practice 37**

41. Write a program that builds a very basic calculator.

## **Practice 38**

42. Write a program that plays Rock Paper Scissors with the user.

## **Practice 39**

43. Write to-do list program that allows user to add, remove, and list tasks.