

Single Recursion Call – 42 Questions with Examples

Q1. Print numbers from 1 to N

Example:

Input: N = 5

Output: 1 2 3 4 5

Q2. Print numbers from N to 1

Example:

Input: N = 5

Output: 5 4 3 2 1

Q3. Sum of first N natural numbers

Example:

Input: N = 5

Output: 15

Q4. Factorial of N

Example:

Input: N = 5

Output: 120

Q5. Sum of digits

Example:

Input: N = 123

Output: 6

Q6. Count digits

Example:

Input: N = 9876

Output: 4

Q7. Product of digits

Example:

Input: N = 234

Output: 24

Q8. Reverse a number

Example:

Input: N = 123

Output: 321

Q9. Check palindrome number

Example:

Input: $N = 121$

Output: True

Q10. Power a^b

Example:

Input: $a = 2, b = 4$

Output: 16

Q11. Maximum element in array

Example:

Input: [1, 5, 3]

Output: 5

Q12. Minimum element in array

Example:

Input: [1, 5, 3]

Output: 1

Q13. Sum of array elements

Example:

Input: [1, 2, 3]

Output: 6

Q14. Check array sorted

Example:

Input: [1, 2, 3]

Output: True

Q15. Count element occurrences

Example:

Input: [1, 2, 2, 3], key = 2

Output: 2

Q16. First occurrence in array

Example:

Input: [1, 2, 3, 2], key = 2

Output: index 1

Q17. Last occurrence in array

Example:

Input: [1, 2, 3, 2], key = 2

Output: index 3

Q18. Print array elements

Example:

Input: [1, 2, 3]
Output: 1 2 3

Q19. Count even numbers

Example:

Input: [1, 2, 4]
Output: 2

Q20. Count vowels in string

Example:

Input: "coding"
Output: 2

Q21. Check prime

Example:

Input: N = 7
Output: True

Q22. GCD of two numbers

Example:

Input: a = 12, b = 18
Output: 6

Q23. LCM of two numbers

Example:

Input: a = 4, b = 6
Output: 12

Q24. Sum of even digits

Example:

Input: 1234
Output: 6

Q25. Remove zeros from number

Example:

Input: 1020
Output: 12

Q26. Count zeros in number

Example:

Input: 10020
Output: 3

Q27. Digital root

Example:

Input: 987

Output: 6

Q28. Decimal to binary

Example:

Input: 5

Output: 101

Q29. String palindrome

Example:

Input: "madam"

Output: True

Q30. Length of string

Example:

Input: "hello"

Output: 5

Q31. Replace character

Example:

Input: "cat", a \rightarrow o

Output: "cot"

Q32. Remove duplicates

Example:

Input: "aabb"

Output: "ab"

Q33. Count words

Example:

Input: "I love code"

Output: 3

Q34. Print all indexes

Example:

Input: [1, 2, 2], key = 2

Output: 1 2

Q35. Check strictly increasing

Example:

Input: [1, 2, 3]

Output: True

Q36. Print array in reverse

Example:

Input: [1, 2, 3]
Output: 3 2 1

Q37. Smallest digit

Example:

Input: 492

Output: 2

Q38. Largest digit

Example:

Input: 492

Output: 9

Q39. Count consonants

Example:

Input: "code"

Output: 2

Q40. Remove character x

Example:

Input: "xoxo"

Output: "oo"

Q41. Sum of alternate digits

Example:

Input: 1234

Output: 4

Q42. Check string contains only digits

Example:

Input: "1234"

Output: True