

Problem 1: Sum of Two Numbers

Instruction:

Write a function `int add(int a, int b)` that takes two integers as arguments and returns their sum.

Sample Input and Output:

Input	Output
5 10	15

Problem 2: Factorial Calculation

Instruction:

Write a function `int factorial(int n)` that takes a single integer `n` and returns the factorial of that number. Factorial of `n` is the product of all positive integers less than or equal to `n`.

Sample Input and Output:

Input	Output
5	120

Problem 3: Even or Odd

Instruction:

Write a function `void checkEvenOdd(int num)` that takes an integer as an argument and prints whether the number is even or odd.

Sample Input and Output:

Input	Output
7	Odd
4	Even

Problem 4: Maximum of Three Numbers

Instruction:

Write a function `int maxOfThree(int a, int b, int c)` that takes three integers as arguments and returns the maximum of the three.

Sample Input and Output:

Input	Output
2 5 3	5
7 1 9	9

Problem 5: Swap Two Numbers

Instruction:

Write a function that swaps the values of two integers using pointers.

Sample Input and Output:

Input	Output
a = 5, b = 10	a = 10, b = 5

Problem 6: Fibonacci Series

Instruction:

Write a function void printFibonacci(int n) that prints the first n numbers in the Fibonacci series. The Fibonacci sequence starts with 0 and 1, and every subsequent number is the sum of the previous two.

Sample Input and Output:

Input	Output
6	0 1 1 2 3 5

Problem 7: Palindrome Check

Instruction:

Write a function int isPalindrome(int num) that returns 1 if the given number is a palindrome and 0 otherwise. A palindrome is a number that reads the same backward as forward.

Sample Input and Output:

Input	Output
121	1
123	0

Problem 8: Prime Number Check

Instruction:

Write a function int isPrime(int n) that returns 1 if the number is prime and 0 otherwise. A prime number is a natural number greater than 1 that has no positive divisors other than 1 and itself.

Sample Input and Output:

Input	Output
13	1
9	0

Problem 9: Sum of Digits**Instruction:**

Write a function `int sumOfDigits(int num)` that returns the sum of the digits of a given integer.

Sample Input and Output:

Input	Output
1234	10
567	18

Problem 10: Count Vowels in a String**Instruction:**

Write a function `int countVowels(char str[])` that takes a string as input and returns the number of vowels (a, e, i, o, u) present in the string.

Sample Input and Output:

Input	Output
programming	3
openAI	3