Brief Summary of 8 Programming Problems

1. Find Largest and Smallest Number

Task: Continuously read numbers until -1 is entered.

Goal: Print the largest and smallest values entered.

Concepts Used: Loops, conditionals, sentinel value, comparisons.

2. Palindrome Checker

Task: Check whether a given word is a palindrome.

Goal: Output whether the word reads the same backward and forward.

Concepts Used: Strings, loops or string comparison.

3. Sum of Digits is Prime

Task: Read a number and find the sum of its digits.

Goal: Check if the digit sum is a prime number.

Concepts Used: Loops, digit extraction, prime checking.

4. Perfect Number Checker

Task: Check if a number is a perfect number.

Goal: A perfect number equals the sum of its proper divisors.

Concepts Used: Loops, modulo, conditional logic.

5. Age in Days (Convert to Years, Months, Days)

Task: Given age in days, convert to years, months, and remaining days.

Goal: Print the breakdown using 365 days/year and 30 days/month.

Concepts Used: Integer division, modulo.

6. Last 2 Digits of Multiplication

Task: Multiply 4 numbers and print only the last two digits.

Goal: Efficiently find last two digits using modulo 100.

Concepts Used: Multiplication, modulo.

7. Sequence and Sum Between Two Numbers

Task: For given N and M, print all numbers between them and their sum.

Goal: Terminate when either number is 0 or negative.

Concepts Used: Loops, sum logic, conditional termination.

8. Divisors of a Number

Task: Print all positive divisors of a given number in ascending order.

Goal: Output all numbers that divide N exactly.

Concepts Used: Loops, modulo, divisibility.