

Instructions

- For each problem, your filename should be “qProblemNumber”.cpp. e.g For Problem 1, create “q1.cpp”.
- Zip all files in a folder and your submission zip filename must be your rollno. e.g “l210001.zip”. Note your zip file shall contain all the .cpp files for the problems you solved. Submit the zip file on google classroom.
- Plagiarism is strictly prohibited.
- Good Luck :)

Exercise

Note: Write all the codes in the C++ language.

Problem 1: Write a program that reads two integers and display True if they are equal otherwise display False.

Input:

Enter Value1: 41

Enter Value2: 41

Output

True

Problem 2: Write a program that reads the score of a student in a variable and displays his grade according to the following criteria:

| Score | Grade |
|-----------|-------|
| ≥ 90 | A+ |
| 80-89 | A |
| 70-79 | B |

| | |
|-------|---|
| 60-69 | C |
| 50-59 | D |
| <50 | F |

Input:

Enter Score: 65

Output

Your Grade: C.

Problem 3: Write and run a program that simulates a simple calculator. It reads two integers and a character. If the character is a +, the sum is printed; if it is a -, the difference is printed; if it is a *, the product is printed; and if it is a /, the quotient is printed.

Input:

Enter Number1: 2

Enter Number2: 3

Enter Operator: +

Output

2 + 3 = 5

Note: Solve Problem 4 and Problem 5 with (nested if-else).

Problem 4: Write a program that reads three integers and outputs the smallest.

Input:

Enter Number1: 2

Enter Number2: 3

Enter Number3: 1

Output

Smallest Number: 1

Problem 5: Write a program that reads three integers and outputs them in decreasing order.

Input:

Enter Number1: 2

Enter Number2: 3

Enter Number3: 1

Output

Decreasing Order: 3 2 1

Note: Solve Problem 6 and Problem 7 without (nested if-else).

Problem 6: Write a program that reads three integers and outputs the largest.

Input:

Enter Number1: 2

Enter Number2: 3

Enter Number3: 1

Output

Largest Number is 3

Problem 7: Write a program that reads three integers and outputs them in increasing order.

Input:

Enter Number1: 2

Enter Number2: 3

Enter Number3: 1

Output

Increasing Order: 1 2 3

Problem 8: Develop the algorithm of a program that determines the gross pay of an employee.

The company pays “straight time” for the first 40 hours worked by each employee and pays “time-and-a-half” for all hours worked in excess of 40 hours. Input the number of hours each employee worked last week and the hourly rate of the employee. Your program should input this information for an employee and should determine and display the employee’s gross pay.

Input:

Enter hours worked: 41

Enter the hourly rate of the employee (Rs.): 100.00

Output

Salary is Rs. 4,150

Problem 9: A large company pays its salespeople on a commission basis. The salespeople each receive Rs. 2,000 per week plus 9% of their gross sales for that week. For example, a salesperson who sells Rs. 50,000 worth of chemicals in a week receives Rs. 2,000 plus 9% of Rs. 50,000, or a total of Rs. 6500. Write a program that takes sales and outputs the salary. **Note:** If the sale is negative, display (Sorry, salary cannot be computed.)

Input:

Enter sales in rupees: 50000

Output

Salary is Rs. 6500