# Lab Exercises on Conditionals

- 1. Write a C program to check whether a given number is even or odd.
- 2. Write a C program to find the largest of three numbers.
- 3. Write a C program to find whether a given year is a leap year or not.
- 4. Write a C program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.
- 5. Write a C program to read roll no, name and marks of three subjects and calculate the total,

percentage and the grade. Use if-else-if ladder.

Percentage from 90 to 100: O grade

Percentage from 80 to 89: A grade.

Percentage from 70 to 79: B grade.

Percentage from 60 to 69 : C grade

Percentage from 50 to 59: D grade.

Percentage from 40 to 49: Pass.

Below 40: Fail.

#### Test Data:

Input the Roll Number of the student :784

Input the Name of the Student :Ram

Input the marks of Physics, Chemistry and Computer Application: 70 80 90

#### Expected Output:

Roll No: 784

Name of Student : Ram Marks in Physics : 70 Marks in Chemistry : 80

Marks in Computer Application: 90

Total Marks = 240

Percentage = 80.00

Grade = A.

6. Write a program in C to calculate and print the Electricity bill of a given customer. The customer id., name and unit consumed by the user should be taken from the

keyboard and display the total amount to pay to the customer. The charge are as follow:

Unit	Charge/unit
upto 199	@1.20
200 and above but less than 400	@1.50
400 and above but less than 600	@1.80
600 and above	@2.00

If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100/-

#### Test Data:

1001

Gokul.

800

## Expected Output:

Customer IDNO :1001 Customer Name :Gokul. unit Consumed :800

Amount Charges @Rs. 2.00 per unit: 1600.00

Surchage Amount: 240.00

Net Amount Paid By the Customer: 1840.00.

7. Write a program in C to read any Month Number in integer and display the number of days for this month. Use switch-case.

## **Sum**

You are given three integers a, b, and c. Determine if one of them is the sum of the other two.

#### Input

The input consists of three integers a, b, c  $(0 \le a,b,c \le 20)$ .

#### Output

Output "YES" if one of the numbers is the sum of the other two, and "NO" otherwise.

## Example

Input

143

#### Output

YES

#### Input

258

#### Output

NO

#### Input

9 11 20

## Output

YES

**Note:** In the first test case, 1+3=4. In the second test case, none of the numbers is the sum of the other two. In the third test case, 9+11=20.

9. Two friends are on the coordinate line, at points with integer coordinates. One of them is at the point a and the other is at the point, b. They can move along the line in any direction unlimited number of times. When a friend moves his tiredness changes according to the following rules:

The first move increases the tiredness by 1, the second move increases the tiredness by 2, the third by 3 and so on. For example, if a friend moves first to the left, then to the right (returning to the same point), and then again to the left his tiredness becomes equal to 1+2+3=6.

The friends want to meet at a integer point with minimum total tiredness. Find the total minimum tiredness they will have.