Exercises

Q 1: Write a C program that accepts an employee's ID, total worked hours of a month and the amount he received per hour. Print the employee's ID and salary (with two decimal places) of a particular month.
Output:
Input the Employees ID: 0342
Input the working hrs: 8
Salary amount/hr: 15000
Expected Output:
Employees ID = 0342
Salary = 120000.00

Q 2: Write a program that asks the user to enter two numbers, obtains them from the user and prints their sum, product, difference, quotient and remainder.

Q 3: State the order of evaluation of the operators in each of the following C statements and show the value of x after each statement is performed.

     a) x = 7 + 3 * 6 / 2 - 1;

     b) x = 2 % 2 + 2 * 2 - 2 / 2;

     c) x = (3 * 9 * (3 + (9 * 3 / (3))));

Q 4: Write a C program to input number of days from user and convert it to years, weeks and days.

Q 5: Write a C program that takes two values (a, b) from the user and returns the result of following expression through printf statement.

  i.   a<=b OR a is not equal to b.

  ii.   a<b AND a==b

  iii.   NOT (a<b AND a==b)

Q 6: Write a C program to Find out distance, coordinates of midpoint using distance formula, derived from Pythagorean Theorem and value of X by Quadratic formula, as follows (use math.h)

$$\text{Distance} = \sqrt{((x2-x1)\char`\^2 + (y2-y1)\char`\^2)}$$

Midpoint= ((x2+x1/2), (y2+y1/2))

Q 7: Write a C program to Find the Roots of a Quadratic Equation. Take user input values of b,a, c (use math.h)

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad \text{Given } (a \neq 0.)$$

Q 8: Write c program that find the result of the following operations: you are allowed to initialize any values.

Observe and write in comment how that operation produce results.

- 5 + 4
- 10/2
- True OR False
- 20 MOD 3
- 5< 8
- 25 MOD 70
- "A" > "H"
- NOT True
- 25/70
- False AND True
- 20 * 0.5
- 35 <= 35

Q 9: Aiman is fond of collecting different country's postage stamps. She is so passionate that she had collected 7 Pakistani stamps, 4 UK stamps, 3 Germany and 3 Australian stamps. Based on the input, identify how many international stamps she has?

Q 10: Write C program to create a BMI calculator application that reads the user's weight in pounds and height in inches (or, if you prefer, the user's weight in kilograms and height in meters), then calculates and displays the user's body mass index. Also, the application should display the following information from the Department of Health and Human Services/National Institutes of Health so the user can evaluate his/her BMI:

BMI VALUES

Underweight: less than 18.5

Normal: between 18.5 and 24.9

Overweight: between 25 and 29.9

Obese: 30 or greater