

Assignment 1:

1. Write a C program to print your name, date of birth. and mobile number.

Expected Output:

Name : Alexandra Abramov

DOB : July 14, 1975

Mobile : 99-9999999999

2. Write a C program to compute the perimeter and area of a circle with a radius of 6 inches.

Expected Output:

Perimeter of the Circle = 37.680000 inches

Area of the Circle = 113.040001 square inches

3. Write a C program to convert specified days into years, weeks and days.

Note: Ignore leap year.

Test Data :

Number of days : 1329

Expected Output :

Years: 3

Weeks: 33

Days: 3

4. 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.

Test Data :

Input the Employees ID(Max. 10 chars): 0342

Input the working hrs: 8

Salary amount/hr: 15000

Expected Output:

Employees ID = 0342

Salary = U\$ 120000.00

5. Write a C program to convert a given integer (in days) to years, months and days, assumes that all months have 30 days and all years have 365 days.

Test Data :

Input no. of days: 2535

Expected Output:

6 Year(s)

11 Month(s)

15 Day(s)

6. Write a C program to read an amount (integer value) and break the amount into smallest possible number of bank notes.

Test Data :

Input the amount: 375

Expected Output:

There are:

3 Note(s) of 100.00

1 Note(s) of 50.00

1 Note(s) of 20.00

0 Note(s) of 10.00

1 Note(s) of 5.00

0 Note(s) of 2.00

0 Note(s) of 1.00

7. Write a C program to check a given integer is positive even, negative even, positive odd or negative odd. Print even if the number is 0.

Test Data :

Input an integer: 13

Expected Output:

Positive Odd

8. Write a C program that swaps two numbers without using third variable.

Input value for x & y:

Before swapping the value of x & y: 5 7

After swapping the value of x & y: 7 5

9. Observe the following program:

Fibonacci series C program

Fibonacci series in C programming: C program for Fibonacci series using a loop and recursion. Using the code below you can print as many terms of the series as required.

Numbers of this sequence are known as Fibonacci numbers. The first few numbers of the series are 0, 1, 1, 2, 3, 5, 8, Except for the first two terms of the sequence, every other term is the sum of the previous two terms, for example, $8 = 3 + 5$ (addition of 3 and 5).

Fibonacci series C program using a for loop

```
/* Fibonacci series program in C language */
#include <stdio.h>

int main()
{
    int n, first = 0, second = 1, next, c;

    printf("Enter the number of terms\n");
    scanf("%d", &n);

    printf("First %d terms of Fibonacci series are:\n", n);

    for (c = 0; c < n; c++)
    {
        if (c <= 1)
            next = c;
        else
        {
            next = first + second;
            first = second;
            second = next;
        }
        printf("%d\n", next);
    }

    return 0;
```

```
}
```

```
/* I will explain it in next class */
```

10. Write a C program that prints the perimeter of a rectangle to take its height and width as input.

Expected Output:

Input the height of the Rectangle : 5

Input the width of the Rectangle : 7

Perimeter of the Rectangle is : 24.000000

11. Write a C program that converts kilometers per hour to miles per hour.

Expected Output:

Input kilometers per hour: 15

9.320568 miles per hour

12. Write a C program that takes hours and minutes as input, and calculates the total number of minutes.

Expected Output:

Input hours: 5

Input minutes: 37

Total: 337 minutes.

13. Write a C program to accept two integers and check whether they are equal or not.

Test Data : 15 15

Expected Output:

Number1 and Number2 are equal

14. Write a C program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.

Test Data : 7 9

Expected Output:

The coordinate point (7,9) lies in the First quadrant.

15. Write a C program to find the eligibility of admission for a professional course based on the following criteria:

Marks in Maths ≥ 65

Marks in Phy ≥ 55

Marks in Chem ≥ 50

Total in all three subject ≥ 180

or

Total in Math and Subjects ≥ 140

Test Data :

Input the marks obtained in Physics :65

Input the marks obtained in Chemistry :51

Input the marks obtained in Mathematics :72

Expected Output:

The candidate is eligible for admission.

16. Write a C program using *switch* to read roll no, name and marks of three subjects and calculate the total, percentage and division.

Test Data :

Input the Roll Number of the student :784

Input the Name of the Student :James

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

Expected Output:

Roll No : 784

Name of Student : James

Marks in Physics : 70

Marks in Chemistry : 80

Marks in Computer Application : 90

Total Marks = 240

Percentage = 80.00

Division = A+

17. Write a C program to using *switch* read temperature in centigrade and display a suitable message according to temperature state below :

Temp < 0 then Freezing weather

Temp 0-10 then Very Cold weather

Temp 10-20 then Cold weather

Temp 20-30 then Normal in Temp

Temp 30-40 then Its Hot

Temp ≥ 40 then Its Very Hot

Test Data :

42

Expected Output:

Its very hot.

18. Write a C program to check whether a triangle is Equilateral, Isosceles or Scalene.

Test Data :

50 50 60

Expected Output:

This is an isosceles triangle.

19. Write a program in C using *switch* to accept a grade and declare the equivalent description :

Grade	Description
E	Excellent
V	Very Good
G	Good
A	Average
F	Fail

Test Data :

Input the grade :A

Expected Output:

You have chosen : Average

20. Write a program in C using *switch* to read any day number in integer and display day name in the word.

Test Data :

4

Expected Output:

Thursday

