1. Write a C program that accepts an employee's ID, total worked hours in a month and the amount received per hour. Print the ID and salary (with two decimal places) of the employee for a particular month.

```c
#include<stdio.h>
int main(){
    int employee_ID;
    float salary_per_hour, worked_hours;
    printf("Enter Employee ID: ");
    scanf("%d", &employee_ID);
    printf("Enter worked hours: ");
    scanf("%f", &worked_hours);
    printf("Enter Salary per hour ($): ");
    scanf("%f", &salary_per_hour);
    float salary = worked_hours * salary_per_hour;
    printf("Employee ID = %d\n", employee_ID);
    printf("salary = %.2f $",salary);
    return 0;
}
```

Output:

```
Enter Employee ID: 110
Enter worked hours: 2
Enter Salary per hour ($): 11.8
Employee ID = 110
salary = 23.60 $
```

2. Write a C program that takes the height and width of a rectangle as an input from user and compute the perimeter and area of a rectangle.

```c
#include<stdio.h>
int main(){

    int height_of_rectangle,width_of_rectangle, area_of_rectangle, perimeter_of_rectangle;
    printf("Enter height of rectangle in meter(m): ");
    scanf("%d", &height_of_rectangle);
    printf("Enter width of rectangle in meter(m): ");
    scanf("%d", &width_of_rectangle);
    area_of_rectangle = height_of_rectangle * width_of_rectangle; // Area = height * width
    perimeter_of_rectangle = 2 * (height_of_rectangle + width_of_rectangle); // Perimeter = 2 * (height + width)
    printf("Area of rectangle: %d m^2 \n", area_of_rectangle);
    printf("Perimeter of rectangle: %d m\n", perimeter_of_rectangle);
    return 0;
}

```

```
Output:

Enter height of rectangle in meter(m): 5
Enter width of rectangle in meter(m): 4
Area of rectangle: 20 m^2
Perimeter of rectangle: 18 m
```

3. Write a C program to accept the height of a person in centimeters and categorize the person according to his height. (Height < 150cm – Dwarf, Height=150cm – Average, Height>=165cm – Tall).

```c
#include<stdio.h>
int main(){

    float height;
    printf("Enter height of a person in centimeter(cm): ");
    scanf("%f",&height);
    if (height < 150) {
        printf("Dwarf\n");
    }
    else if (height == 150) {
        printf("average \n");
    }
    else {
        printf("Tall\n");
    }
    return 0;
}

```

```
Output:

1) Enter height of a person in centimeter(cm): 165
Tall

2) Enter height of a person in centimeter(cm): 145
Dwarf

3) Enter height of a person in centimeter(cm): 150
average
```

4. Write a program in C to convert a decimal number to a binary number using functions.

```c
#include<stdio.h>
// Function to convert decimal to binary using recursion
    void decimal_to_binary(int decimal_number){
        if (decimal_number == 0){
            return;
        }
        else{
            decimal_to_binary(decimal_number/2); // division by 2 to reach the base case
            printf("%d", decimal_number % 2);
        }
    }
// Main function to take user input and call the conversion function
int main(){
    int number;
    printf("Enter a decimal number: ");
    scanf("%d", &number);
    if (number < 0){
        printf("Please enter a non-negative integer.\n");
    }else if (number == 0){
        printf("Binary: 0\n");
    }else{
        printf("Binary: ");
        decimal_to_binary(number);
        printf("\n");
    }
    return 0;
}
```

```
Output:

1) Enter a decimal number: 5
Binary: 101

2) Enter a decimal number: 0
Binary: 0

3) Enter a decimal number: -3
Please enter a non-negative integer.
```

5. Write a function to calculate the nth Fibonacci number and call it recursively to print the Fibonacci series.

```c
# include <stdio.h>

// fibonacci series functon by recursion

int fibonacci(int n){
    int a,b,nextTerm;
    if(n<1)
        printf("Enter positive integer");
    else if(n==1)
        return 0;
    else if(n==2)
        return 1;
    else
        return fibonacci(n-1)+fibonacci(n-2); // recursive call
}

int main() {
    printf("Enter the number of terms: ");
    int n;
    scanf("%d",&n);
    printf("Fibonacci Series: ");
    for(int i = 1; i <= n; i++){
        printf(" %d",fibonacci(i));
        if (i<n){
            printf(",");
        }
    }
    printf("\n");
    return 0;
}
```

Output:

```
Enter the number of terms: 5
Fibonacci Series:  0, 1, 1, 2, 3
```