Problem 1

Write a C program that will take a character as input and convert it into uppercase if it is given as lowercase and vice-versa.

Source Code

main.c

```c
#include<stdio.h>
#include<ctype.h>

int main() {
    char ch;
    printf("Enter a character: ");
    scanf("%c", &ch);

    if (islower(ch)) {
        ch = toupper(ch);
    }
    else if (isupper(ch)) {
        ch = tolower(ch);
    }

    printf("Converted character: %c\n", ch);

    return 0;
}
```

Input & Output

Output

```
Enter a character: A
Converted character: a


=== Code Execution Successful ===
```

Output

```
Enter a character: c
Converted character: C


=== Code Execution Successful ===
```

Problem 2

Write a C program to perform various formatted input/output operations on floating point numbers.

Source Code

main.c

```c
#include <stdio.h>

int main() {
    float x, a;

    scanf("%f", &x);
    printf("result: %f\n", x);

    scanf("%e", &x);
    printf("result: %e\n", x);

    scanf("%g", &x);
    printf("result: %g\n\n", x);


    a = 12.345;
    printf("%7.4f\n", a);
    printf("%.2f\n", a);
    printf("%-7.2f\n", a);
    printf("%010.2f\n", a);
    printf("%10.2e\n", a);
    printf("%-10.2e\n", a);
    printf("%e\n", a);
    printf("%E\n", a);

    return 0;
}
```

Input & Output

Output

```
12.35
result: 12.350000
1.235e+02
result: 1.235000e+02
3.45
result: 3.45

12.3450
12.35
12.35
0000012.35
  1.23e+01
1.23e+01
1.234500e+01
1.234500E+01


=== Code Execution Successful ===
```

Problem 3

Write a C program for converting days into years, months and days.

Source Code

main.c

Share Run

```c
#include<stdio.h>

int main() {
    int totalDays, years, months, days;
    printf("Enter dyas: ");
    scanf("%d", &totalDays);

    years = totalDays / 365;
    totalDays = totalDays % 365;
    months = totalDays / 30;
    days = totalDays % 30;

    printf("Years: %d, Moths: %d, Days: %d\n", years, months, days);

    return 0;
}
```

Input & Output

Output

```
Enter dyas: 900
Years: 2, Moths: 5, Days: 20


=== Code Execution Successful ===
```

Problem 4

Write a C program for assigning (1 > 4 || 3 ! = 5) to a variable and print its value.

Source Code

main.c

```c
#include<stdio.h>

int main() {
    int n;
    n = (1>4 || 3!=5);
    printf("Result: %d\n", n);
    return 0;
}
```

Input & Output

Output

```
Result: 1


=== Code Execution Successful ===
```

Problem 5

Write a C program to check whether a number is even or odd using bitwise operator.

Source Code

main.c

```c
#include<stdio.h>

int main() {
    int num;
    printf("Enter a number: ");
    scanf("%d", &num);

    if(num & 1) {
        printf("Odd\n");
    } else {
        printf("Even\n");
    }
    return 0;
}
```

Input & Output

Output

```
Enter a number: 5
Odd


=== Code Execution Successful ===
```

Output

```
Enter a number: 20
Even


=== Code Execution Successful ===
```