

1. Program to Find the Sum of Two Numbers Using a Function

Code:

```
#include <stdio.h>
// Function to add two numbers
int add(int a, int b) {
    return a + b;
}

int main() {
    int num1, num2, sum;
    printf("Enter two numbers: ");
    scanf("%d %d", &num1, &num2);
    sum = add(num1, num2);
    printf("Sum: %d\n", sum);
    return 0;
}
```

Example Output:

Enter two numbers: 5 10

Sum: 15

2. Program to Find the Factorial of a Number Using a Function

Code:

```
#include <stdio.h>
// Function to calculate factorial
int factorial(int n) {
    if (n == 0 || n == 1)
        return 1;
    else
        return n * factorial(n - 1);
}

int main() {
    int num;
    printf("Enter a number: ");
    scanf("%d", &num);
    printf("Factorial of %d is %d\n", num, factorial(num));
    return 0;
}
```

Example Output:

Enter a number: 5

Factorial of 5 is 120

3. Program to Check if a Number is Even or Odd Using a Function

Code:

```
#include <stdio.h>
// Function to check even or odd
void checkEvenOdd(int num) {
    if (num % 2 == 0)
        printf("%d is Even\n", num);
    else
        printf("%d is Odd\n", num);
}
```

```
int main() {
    int number;
    printf("Enter a number: ");
    scanf("%d", &number);
    checkEvenOdd(number);
    return 0;
}
```

Example Output:

```
Enter a number: 7
7 is Odd
```

4. Program to Find the Greatest of Three Numbers Using a Function

Code:

```
#include <stdio.h>
// Function to find the greatest number
int greatest(int a, int b, int c) {
    if (a >= b && a >= c)
        return a;
    else if (b >= a && b >= c)
        return b;
    else
        return c;
}
```

```
int main() {
    int num1, num2, num3;
    printf("Enter three numbers: ");
    scanf("%d %d %d", &num1, &num2, &num3);
    printf("The greatest number is: %d\n", greatest(num1, num2, num3));
}
```

```
    return 0;
}
```

Example Output:

Enter three numbers: 10 25 15

The greatest number is: 25

5. Program to Swap Two Numbers Using a Function

Code:

```
#include <stdio.h>
// Function to swap two numbers
void swap(int *a, int *b) {
    int temp = *a;
    *a = *b;
    *b = temp;
}

int main() {
    int num1, num2;
    printf("Enter two numbers: ");
    scanf("%d %d", &num1, &num2);
    printf("Before swapping: num1 = %d, num2 = %d\n", num1, num2);
    swap(&num1, &num2);
    printf("After swapping: num1 = %d, num2 = %d\n", num1, num2);
    return 0;
}
```

Example Output:

Enter two numbers: 3 7

Before swapping: num1 = 3, num2 = 7

After swapping: num1 = 7, num2 = 3