Swap two numbers with third variable

```
#include <stdio.h>

int main() {
    int a, b, temp;

    printf("Enter two numbers: ");
    scanf("%d %d", &a, &b);

    printf("Before swapping: a = %d, b = %d\n", a, b);

    temp = a;
    a = b;
    b = temp;

    printf("After swapping: a = %d, b = %d\n", a, b);

    return 0;
}
```

Swap two numbers without third variable

```
#include <stdio.h>

int main() {
    int a, b;

    printf("Enter two numbers: ");
    scanf("%d %d", &a, &b);

    printf("Before swapping: a = %d, b = %d\n", a, b);

    a = a + b;
    b = a - b;
    a = a - b;

    printf("After swapping: a = %d, b = %d\n", a, b);

    return 0;
}
```

Sum of Average of N numbers

```
#include <stdio.h>

int main() {
    int n, i;
    float sum = 0, avg;

    printf("Enter the number of elements: ");
    scanf("%d", &n);

    float numbers[n];

    printf("Enter %d numbers:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%f", &numbers[i]);
        sum += numbers[i];
    }

    avg = sum / n;

    printf("Sum = %.2f\n", sum);
    printf("Average = %.2f\n", avg);

    return 0;
}
```

Largest number in array

```
#include <stdio.h>

int main() {
    int n, i, largest;

    // Taking input from the user
    printf("Enter the number of elements: ");
    scanf("%d", &n);

    int arr[n];  // Array declaration

    printf("Enter %d numbers:\n", n);
    for (i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }

    // Assume the first element is the largest
    largest = arr[0];

    // Loop to find the largest number
    for (i = 1; i < n; i++) {
        if (arr[i] > largest) {
            largest = arr[i];
        }
    }

    printf("Largest number in the array = %d\n", largest);

    return 0;
}
```

Without user input

```
#include <stdio.h>

int main() {
    int arr[] = {12, 45, 67, 23, 89, 56, 78};  // Predefined array
    int n = sizeof(arr) / sizeof(arr[0]);  // Calculate number of elements
    int largest = arr[0];  // Assume first element is the largest

    // Loop to find the largest number
    for (int i = 1; i < n; i++) {
        if (arr[i] > largest) {
            largest = arr[i];
        }
    }

    printf("Largest number in the array = %d\n", largest);

    return 0;
}
```

Smallest number in array:

```
#include <stdio.h>

int main() {
    int arr[] = {12, 45, 67, 23, 89, 56, 78};  // Predefined array
    int n = sizeof(arr) / sizeof(arr[0]);  // Calculate number of elements
    int smallest = arr[0];  // Assume first element is the smallest

    // Loop to find the smallest number
    for (int i = 1; i < n; i++) {
        if (arr[i] < smallest) {
            smallest = arr[i];
        }
    }

    printf("Smallest number in the array = %d\n", smallest);

    return 0;
}
```

Even or Odd

```
#include <stdio.h>

int main() {
    int num;

    // Taking input from the user
    printf("Enter a number: ");
    scanf("%d", &num);

    // Checking if the number is even or odd
    if (num % 2 == 0) {
        printf("%d is an Even number.\n", num);
    } else {
        printf("%d is an Odd number.\n", num);
    }

    return 0;
}
```

String manipulation

```
#include <stdio.h>
#include <string.h>

int main() {
    char str1[50], str2[50], concat[100];
    int length, compare;

    // Taking input for two strings
    printf("Enter first string: ");
    gets(str1);  // Read first string

    printf("Enter second string: ");
    gets(str2);  // Read second string

    // Finding length of first string
    length = strlen(str1);
    printf("Length of first string: %d\n", length);

    // Copying first string to another variable
    strcpy(concat, str1);
    printf("Copied String: %s\n", concat);

    // Concatenating two strings
    strcat(concat, str2);
    printf("Concatenated String: %s\n", concat);

    // Comparing two strings
    compare = strcmp(str1, str2);
    if (compare == 0) {
        printf("Strings are equal.\n");
    } else {
        printf("Strings are not equal.\n");
    }

    return 0;
}
```