```c
#include <stdio.h>
long long fact(int n) {
    if(n == 0) return 1;
    return n * fact(n - 1);
}
int main() {
    int n;
    printf("enter a number:");
    scanf("%d", &n);
    printf("%lld", fact(n));
    return 0;
}
```

```c
#include <stdio.h>
int main() {
    int n, sum = 0;
    printf("enter a number:");
    scanf("%d", &n);
    for(int i = 1; i <= n; i++){
        sum += i;
    }
    printf("%d", sum);
    return 0;
}
```

```c
#include <stdio.h>
long long fib(int n) {
    if(n == 0) return 0;
    if(n == 1) return 1;
    return fib(n-1) + fib(n-2);
}
int main() {
    int n;
    printf("enter a number:");
    scanf("%d", &n);
    printf("%lld", fib(n));
    return 0;
}
```

```c
#include <stdio.h>
int main() {
    long long num;
    long long k;
    printf("enter the number and the negative number:");
    scanf("%lld %lld", &num, &k);
    if(k >= 0) {
        printf("Divisor must be negative");
        return 0;
    }
    if(num % k == 0)
        printf("Divisible");
    else
        printf("Not divisible");

    return 0;
}
```

```c
#include <stdio.h>
#include <string.h>
int main() {
    int n;
    scanf("%d", &n);
    printf("enter the number of rows:");
    char arr[n][100];
    for(int i = 0; i < n; i++){
        scanf("%s", arr[i]);
    }
    for(int i = n - 1; i >= 0; i--){
        printf("%s\n", arr[i]);
    }
    return 0;
}
```

```c
#include <stdio.h>
#include <string.h>
void reverse(char s[]) {
    int i = 0, j = strlen(s)-1;
    while(i < j) {
        char t = s[i];
        s[i] = s[j];
        s[j] = t;
        i++; j--;
    }
}
int main() {
    int n;
    printf("enter the numebr of rows:");
    scanf("%d", &n);
    char arr[n][100];
    for(int i = 0; i < n; i++)
        scanf("%s", arr[i]);
    for(int i = 0; i < n; i++) {
        reverse(arr[i]);
        printf("%s\n", arr[i]);
    }
    return 0;
}
```

```c
#include <stdio.h>
#include <string.h>
#include <ctype.h>
int main() {
    int T;
    printf("enter number of test case:");
    scanf("%d", &T);
    while(T--) {
        char s[200];
        scanf("%s", s);
        int len = strlen(s);
        int valid = 1;

        if(len != 10) {
            valid = 0;
        }

        if(s[0] == '0') {
            valid = 0;
        }
        for(int i = 0; i < len; i++) {
            if(!isdigit(s[i])) {
                valid = 0;
                break;
            }
        }

        if(valid)
            printf("YES\n");
        else
            printf("NO\n");
    }

    return 0;
}
```

```c
#include <stdio.h>
float average(int n) {
    float sum = 0;
    for(int i = 1; i <= n; i++) {
        sum += i * 10;    // i-th multiple of 10
    }
    return sum / n;
}
int main() {
    int n;
    printf("enter the number of elements:");
    scanf("%d", &n);
    printf("%.2f", average(n));
    return 0;
}
```

```c
#include <stdio.h>
float average_while(int a[], int n) {
    float sum = 0.0;
    int i = 0;
    while(i < n) {
        sum += a[i];
        i++;
    }
    return sum / n;
}
int main() {
    int n;
    scanf("%d", &n);

    int arr[n];
    for(int i = 0; i < n; i++)
        scanf("%d", &arr[i]);

    printf("%f", average_while(arr, n));
    return 0;
}
```

```c
#include <stdio.h>
int main() {
    int n;
    printf("enter number of elements:");
    scanf("%d", &n);
    int arr[n];
    int freq[1002] = {0};

    for(int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
        freq[arr[i]]++;
    }

    int count = 0;
    for(int i = 0; i <= 1001; i++) {
        if(freq[i] == 1)
            count++;
    }

    printf("%d", count);

    return 0;
}
```

```c
1   #include <stdio.h>
2   int main() {
3       char s[200];
4       printf("enter the sentences:");
5       fgets(s, sizeof(s), stdin);
6       int words = 0;
7       for(int i = 0; s[i] != '\0'; i++) {
8           if(s[i] == ' ')
9               words++;
10      }
11      printf("%d", words + 1);
12      return 0;
13  }
14
```

```c
#include <stdio.h>
#include <string.h>
int main() {
    char a[100], b[100];
    printf("enter the 2 strs:");
    scanf("%s %s", a, b);
    if(strlen(a) != strlen(b)) {
        printf("Not Anagram");
        return 0;
    }
    int freq1[256] = {0}, freq2[256] = {0};
    for(int i = 0; a[i]; i++) freq1[(unsigned char)a[i]]++;
    for(int i = 0; b[i]; i++) freq2[(unsigned char)b[i]]++;
    for(int i = 0; i < 256; i++) {
        if(freq1[i] != freq2[i]) {
            printf("Not Anagram");
            return 0;
        }
    }
    printf("Anagram");
    return 0;
}
```