main.c Output

```c
#include <stdio.h>
int main() {
    int i, fact = 1;
    for(i = 1; i <= 5; i++) {
        fact = fact * i;
    }
    printf("Factorial of 5 = %d", fact
        );

    return 0;
}

```

main.c | Output

```c
#include <stdio.h>
int main() {
    int n, i;
    long long fact = 1;
    printf("Enter a number: ");
    scanf("%d", &n);
    for(i = 1; i <= n; i++) {
        fact = fact * i;
    }
    printf("Factorial of %d = %lld", n,
        fact);

    return 0;
}
```

main.c | Output

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

    for(i = 1; i <= n; i++) {
        sum = sum + i;
    }
    printf("Sum of first %d natural
        numbers = %d", n, sum);

    return 0;
}
```

main.c | Output

```c
#include <stdio.h>
int isDivisible(long long int num, long long int k) {
    if(k == 0) {
        printf("k cannot be zero!\n");
        return 0;
    }
    if(k > 0) {
        printf("k must be negative!\n");
        return 0;
    }

    if(num % k == 0)
        return 1;
    else
        return 0;
}

int main() {
    long long int num, k;

    printf("Enter a long long number: ");
    scanf("%lld", &num);
```

Run

```c
    printf("Enter a long long number: "
        );
    scanf("%lld", &num);

    printf("Enter a negative number: "
        );
    scanf("%lld", &k);

    if(isDivisible(num, k))
        printf("%lld is divisible by
            %lld\n", num, k);
    else
        printf("%lld is NOT divisible
            by %lld\n", num, k);

    return 0;
}
```

Run

main.c | Output

```c
#include <stdio.h>
int main() {
    char a[100];
    printf("Enter the sentences:");
    fgets(a,sizeof(a),stdin);
    int words = 0;
    for(int i = 0; a[i] != '\0';i++) {
        if(a[i] == ' ')
        words++;
    }
    printf("%d", words+1);
    return 0;
}
```

main.c | Output

```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;
}
```

Run

main.c | Output

```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;
}
```

main.c | Output

```c
#include <stdio.h>
float Avg(int N);
int main() {
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);
    printf("The Average of %d values: %
        .2f", n, Avg(n));
    return 0;
}
    float Avg(int N) {
    float sum = 0;
    for (int i = 0; i<=N; i++) {
    sum += i * 10;
}
    return sum/N;
}
```

main.c | Output

```c
#include<stdio.h>
float avg(int arr[], int N);
int main() {
    int n;
    printf("Enter a number: ");
    scanf("%d", &n);
    int numbers[n+1];
    int i = 0;
    while (i <= 0) {
        numbers[i] = i*10;
        i++;
    }
    printf("The Average of %d values: %
        .2f\n,",n,avg(numbers,n));
    return 0;
}
float avg(int arr[],int n){
    float sum = 0;
    int i=0;
    while (i <= n) {
        sum += arr[i];
        i++;
    }
    return sum/n;
}
```

Run

main.c | Output

```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;
}

```

main.c | Output

```c
#include <stdio.h>
int countUnique(int arr[], int n) {
    int freq[MAX_VALUE + 1] = {0};
    for (int i = 0; i < n; i++)
}
int uniqueCount = 0;
for (int i = 0; i <= MAX_VALUE; i++) {
if (freq[i] == 1) {
uniqueCount++;
}
}
return uniqueCount;
int main() {
int n;
printf("Enter the size of the array: "
    );
scanf("%d", &n);
int arr[n];
printf("Enter %d elements (0 to 1001
    ):\n", n);
for (int i = 0; i < n; i++) {
scanf("%d", &arr[i]);
}
int uniqueCount = countUnique(a
printf("Number of unique elements:
```

Run

```c
12  return uniqueCount;
13  int main() {
14  int n;
15  printf("Enter the size of the array: "
        );
16  scanf("%d", &n);
17  int arr[n];
18  printf("Enter %d elements (0 to 1001
        ):\n", n);
19  for (int i = 0; i < n; i++) {
20  scanf("%d", &arr[i]);
21  }
22  int uniqueCount = countUnique(arr, n);
23  printf("Number of unique elements:
        %d\n", uniqueCount);
24  return 0;
25  }
```

Run