

main.c



Run

Output

Clear

```
1 #include <stdio.h>
2 int fib(int n) {
3     if (n == 0)
4         return 0;
5     else if (n == 1)
6         return 1;
7     else
8         return fib(n-1) + fib(n-2);
9 }
10 int main() {
11     int n;
12     printf("Enter Fibonacci number: ");
13     scanf("%d", &n);
14     printf("Fibonacci number = %d", fib(n));
15     return 0;
16 }
```

```
Enter Fibonacci number: 16
Fibonacci number = 987
==== Code Execution Successful ===
```

3) Write a program to find the n^{th} Fibonacci number using recursion.

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

Output :-

Enter Fibonacci number : 16

Fibonacci number = 987