

main.c



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Run

Output

Clear

```
1  #include <stdio.h>
2
3  int fibonacci(int n) {
4      if (n == 0)
5          return 0;
6      else if (n == 1)
7          return 1;
8      else
9          return fibonacci(n - 1) + fibonacci(n - 2);
10 }
11
12 int main() {
13     int n;
14
15     printf("Enter n: ");
16     scanf("%d", &n);
17
18     printf("Fibonacci number = %d\n", fibonacci(n));
19
20     return 0;
21 }
```

Enter n: 10  
Fibonacci number = 55

=== Code Execution Successful ===

3) write a program to find the fibonacci number using recursion.

→ I/P :-

```
#include <stdio.h>
int fibonacci(int n) {
    if (n == 0)
        return 0;
    else if (n == 1)
        return 1;
    else
        return fibonacci(n-1) + fibonacci(n-2);
}
```

```
int main() {
    int n;
    printf("Enter n: ");
    scanf("%d", &n);
    printf("Fibonacci number = %d", fibonacci(n));
    return 0;
}
```

O/P :- Enter n = 10  
Fibonacci number = 55