

```

1  #include<bits/stdc++.h>
2  using namespace std;
3  /*
4      fib(n) => 0 1 1 2 3 5 8 13
5      n    => 0 1 2 3 4 5 6 7
6
7      if recursion call same value again and again...
8      then we can use memoisation
9
10 */
11 int fib(int x)
12 {
13     if(n <= 1)
14     {
15         return n;
16     }
17     else{
18         return fib(n-2) + fib(n-1);
19     }
20 }
21
22 int f[10] = {-1}; // global variable ...
23 int mfib(int n)
24 {
25     if(n <= 1)
26     {
27         F[n] = n;
28         return n;
29     }
30     else{
31
32         if(F[n-2] == -1)
33         {
34             F[n-2] = mfib(n-2);
35         }
36
37         if(F[n-1] == -1)
38         {
39             F[n-1] = mfib(n-1);
40         }
41
42         return F[n-2] + F[n-1];
43     }
44 }
45
46 }
47
48 int main()
49 {
50     int x;
51     x = 5;
52     fib(x);
53     mfib(x);

```

