

Sequence Explorer

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Details of project : *I'm implementing this project by using python programming language.*

Code:

```
Sequenceexplorer.py  +
1 ▾ def fib(n):
2 ▾     if n == 0:
3         return 0
4 ▾     elif n == 1:
5         return 1
6 ▾     else:
7         return n
8         return fib(n-1)+fib(n-2)
9 n=int(input())
10 print(fib(n))
```

Input and output:

```
STDIN
5

Output:
5
```

Explanation: In this program I have implemented by n^{th} Fibonacci series which is nothing but n^{th} Fibonacci series by using Recursion. In the Fibonacci series the first two terms are i.e, 0 and 1 and the next terms will be sum of two previous terms. if $n=1$ or 0 it will the same value. otherwise it will return $\text{fib}(n-1)+\text{fib}(n-2)$. This will be until repeatedly n value equal to given value.

Conclusion: Finally I have got desired 5 for the Fibonacci of 5^{th} term.