

1. Measurement results

N	recursion	iteration
5	0	0
10	0	0
15	0	0
20	10000	0
25	160000	0
30	1280000	0
35	10570000	0

2. Comparison

- Iterative implementation runs faster than recursive one does.
- The iterative implementation uses less memory than recursive one does.
- The recursive method is simpler to implement than iterative method.

3. Analysis

- Recursive implementation has the complexity of $O(2^n)$.
- Iterative implementation has the complexity of $O(n)$.

4. Reference

- <https://www.geeksforgeeks.org/time-complexity-recursive-fibonacci-program/>
- http://planet.jboss.org/post/fibonacci_sequence_with_and_without_recursion