

```

package compare;

import java.util.Scanner;

public class Compare {
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.print("Enter the last element of Fibonacci sequence: ");
        int n = sc.nextInt();

        long start = System.currentTimeMillis();
        System.out.printf("Fibonacci sequence Iteration= %d \n", n, fibI(n));
        System.out.printf("Time: %d ms\n", System.currentTimeMillis() - start);

        start = System.currentTimeMillis();
        System.out.printf("Fibonacci sequence Recursion = %d \n", n, fibR(n));
        System.out.printf("Time: %d ms\n", System.currentTimeMillis() - start);
    }

    static int fibI(int n) {
        int x = 0, y = 1, z = 1;
        for (int i = 0; i < n; i++) {
            x = y;
            y = z;
            z = x + y;
        }
        return x;
    }

    static int fibR(int n) {
        if ((n == 1) || (n == 0)) {
            return n;
        }
        return fibR(n - 1) + fibR(n - 2);
    }
}

```

Output: -

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Enter the last element of Fibonacci sequence: 2
Fibonacci sequence Iteration = 2
Time: 5 ms
Fibonacci sequence Recursion = 2
Time: 0 ms

```

