

0 1 2 3 5 8 13

0 1 2 3 4

```

if (n == 0)
    return n
elseif (n == 1)
    return n

```

Recursive Fibonacci

```
return fib(n-2) + fib(n-1)
```

$$= \text{fib}(4-2) + \text{fib}(4-1)$$

$$\text{fib}(2) \quad \text{fib}(3)$$

$$\swarrow \quad \searrow \quad \swarrow \quad \searrow$$

$$\text{fib}(0) + \text{fib}(1) \quad \text{fib}(1) + \text{fib}(2) \quad \text{fib}(1) + \text{fib}(0)$$

