Lec-20

15/01/26 2:02 PM

①

N! → (N-1)!

a^n → a^{n-1} × a

pow(a, n-1)

N = 5

1+2+3+4+5

F(n-1) + N

N = 5
4
3
2
1

Head|tail

N = 5
1
2
3
4
5

[2, 3, 4, 5, 8, 7]
0 1 2 3 4 5

arr[0] > arr[1]

False ✓

arr[1] > arr[2]

arr[2] > arr[3]

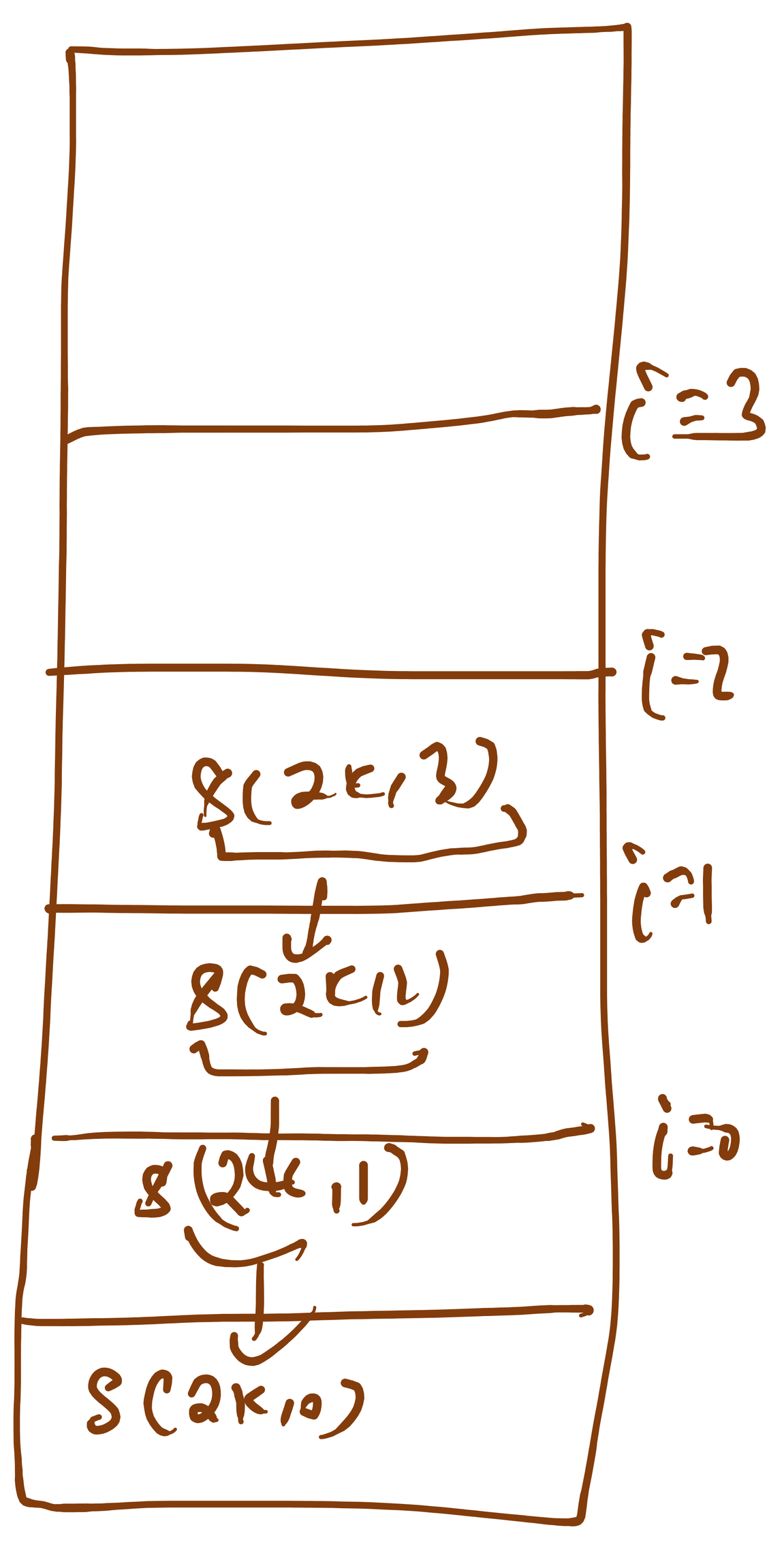
```java
public static void main(String[] args) {
	// TODO Auto-generated method stub
	int [] arr = {2,3,5,8,7};
	System.out.println(Is_Sorted(arr, 0));

}
public static boolean Is_Sorted(int [] arr,int i) {
	if(i==arr.length-1) {
		return true;
	}
	if(arr[i]>arr[i+1]) {
		return false;
	}
	return Is_Sorted(arr, i+1);
}
```

arr[0] > arr[1]

arr[1] > arr[2]

5 > 8

8 > 7



i

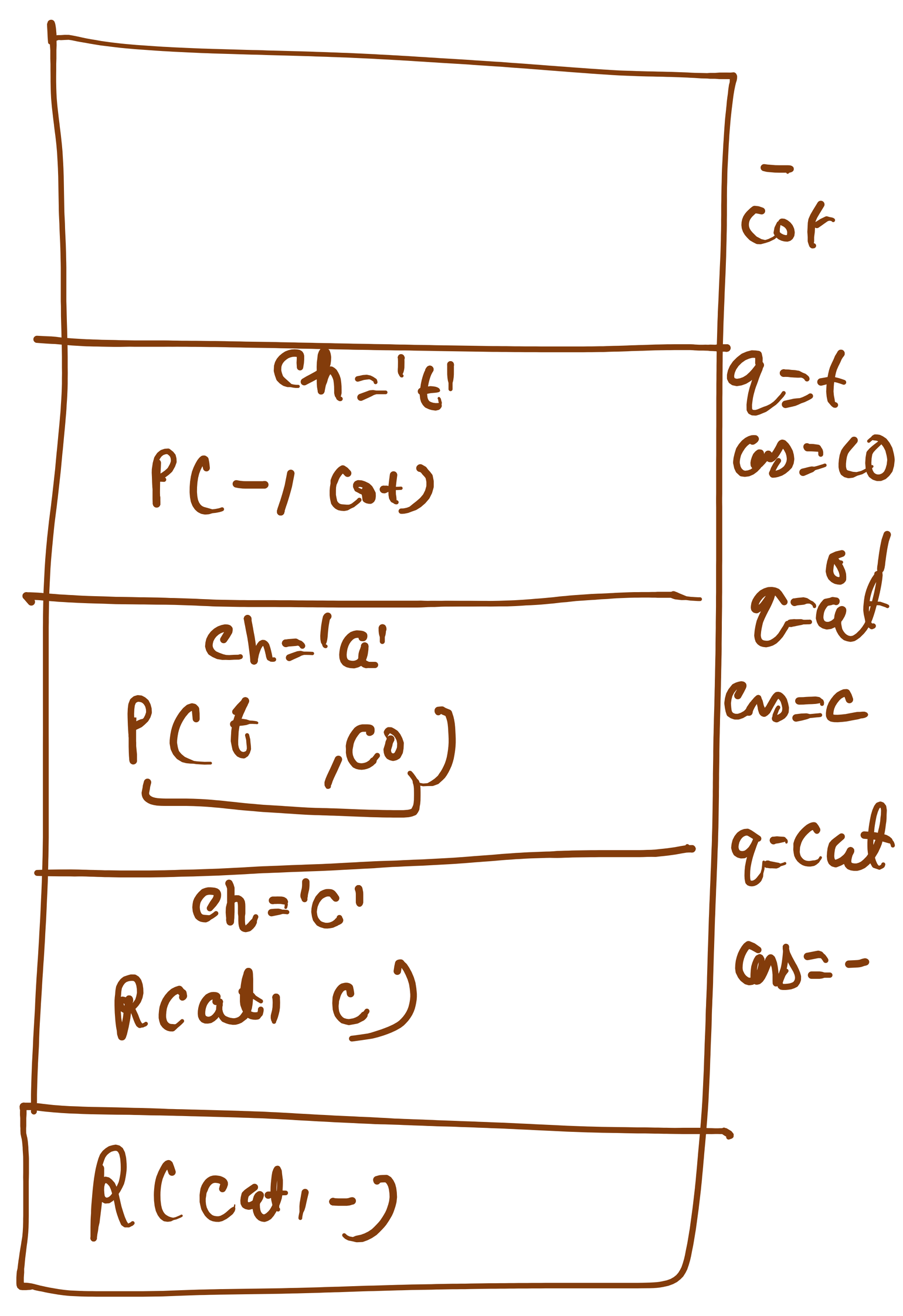
Cat → Cot

at

t

CO t

```java
public static void Replace(String ques, String ans) {
	if (ques.length() == 0) {
		System.out.println(ans);
		return;
	}
	char ch = ques.charAt(0);
	if (ch == 'a') {
		Replace(ques.substring(1), ans + 'o');
	} else {
		Replace(ques.substring(1), ans + ch);
	}

}
```



2nd

Fib(n)

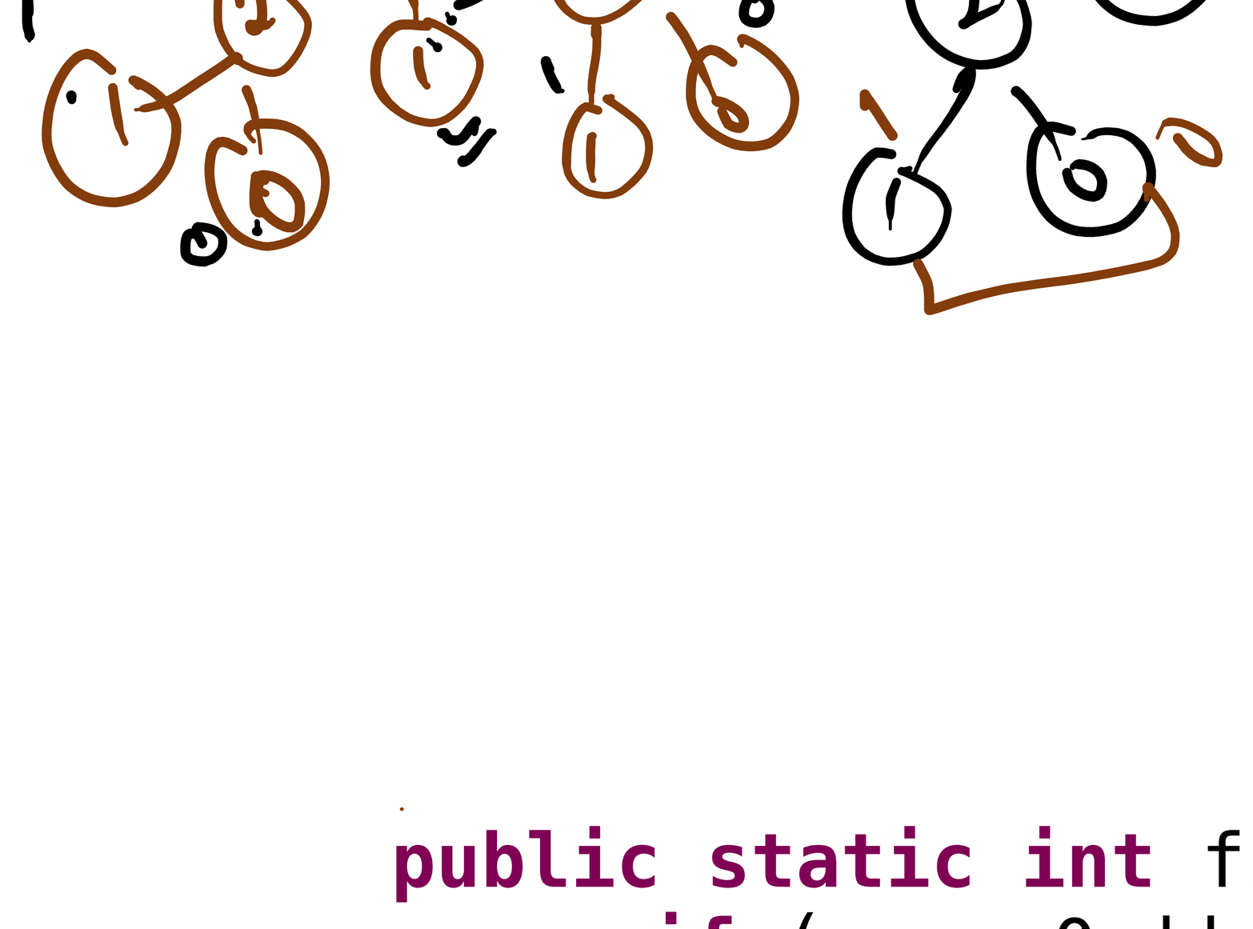
Nth fibo

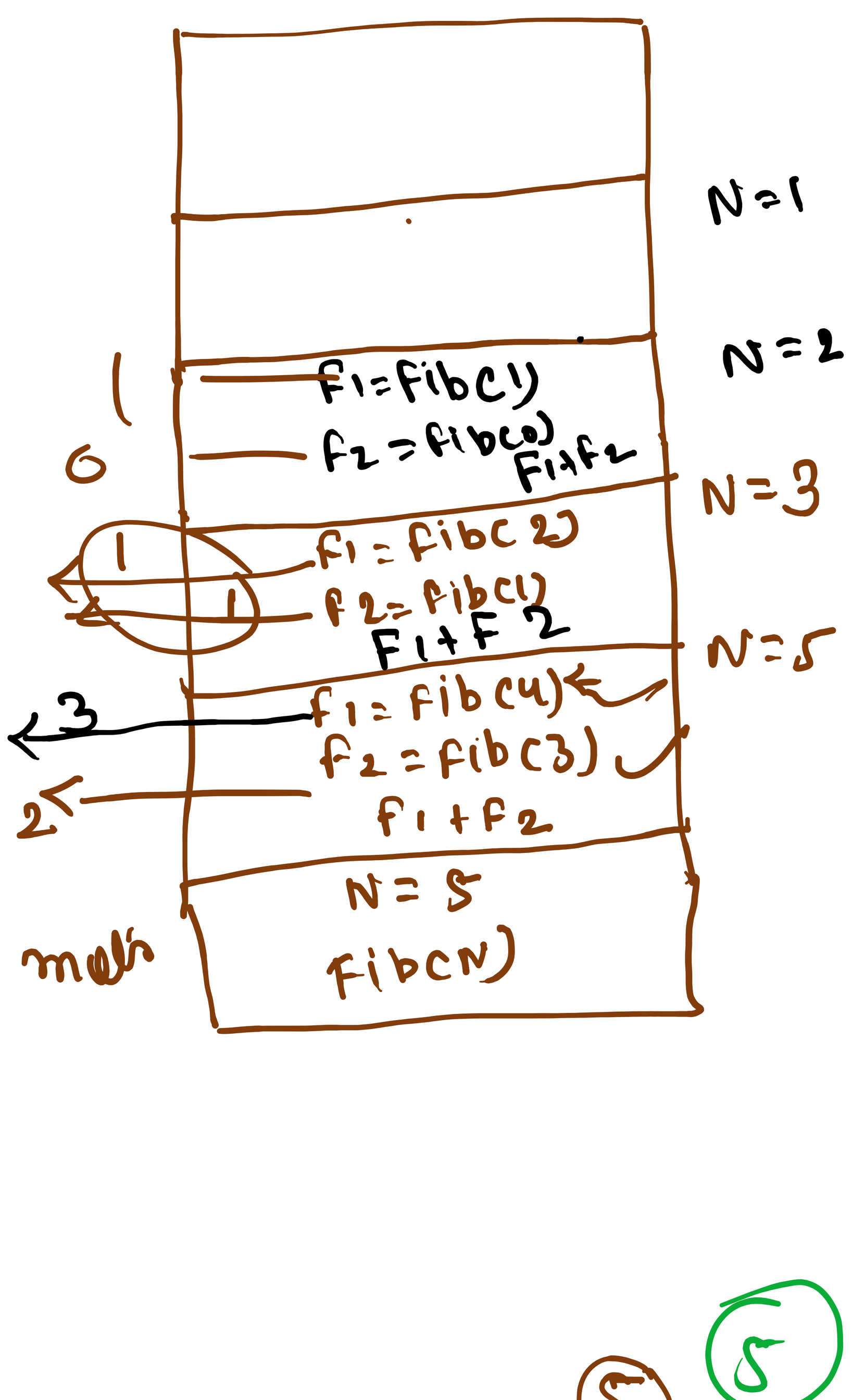
Fib(N-1) + Fib(N-2)

N==0
N==1

n

```java
public static int fib(int n) {
	if (n == 0 || n == 1) {
		return n;
	}
	int f1 = fib(n - 1);
	int f2 = fib(n - 2);
	return f1 + f2;

}
```






```java
public static int fib(int n) {
	if (n == 0 || n == 1) {
		return n;
	}
	int f1 = fib(n - 1);
	int f2 = fib(n - 2);
	return f1 + f2;

}
```