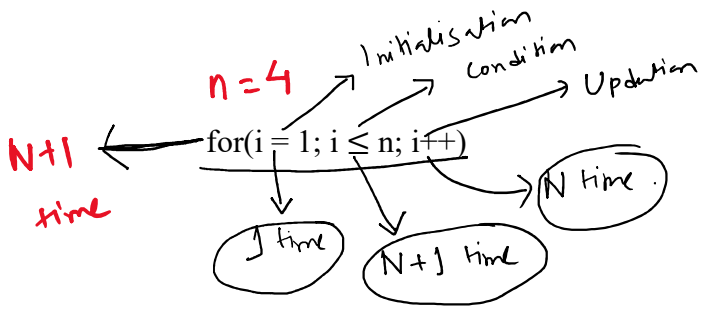


i	N	i<=N
1	4	1<=4
2	4	2<=4
3	4	3<=4
4	4	4<=4
5	4	5<=4 (False)

```
Sum(arr, n)
{
   int ans= 0;
   for(int i = 0; i < n; i++) {
      ans+= arr[i];
   }
   return ans;
}
```

1 time

N+1

N

N time

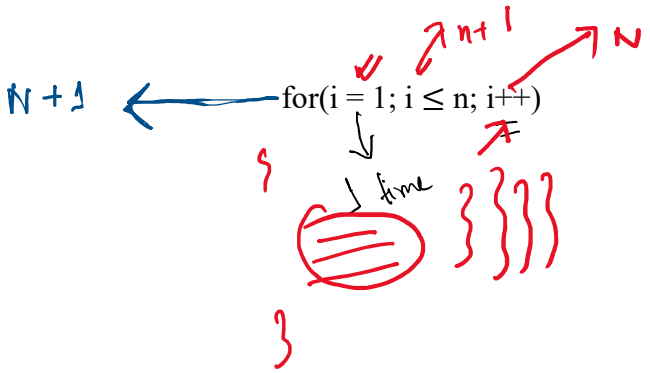
1 time.

i	N	i<N
0	4	0<4
1	4	1<4
2	4	2<4
3	4	3<4
4	4	4<4 (X)

Add = 1 + (n+1) + N + 1 = 2N+3

```
int n=4;
for(int i=1;i<=n;i++){
    for(int j=1;j<=n;j++){
        System.out.println(i+" "+j);
    }
}
```

Add = 1 + n + 1 + n^2 + n + n^2 = $(2n^2 + 2n + 2)$



i	N	
1	4	1 <= 4
2		2 <= 4
3		3 <= 4
4		4 <= 4
5		5 <= 4

```
Sum(arr, n)
{
   int ans= 0;
  for(int i = 0; i < n; i++) {
       ans+= arr[i];
   }
   return ans;
}
```

1 time. 1 time. N+1. N. N+1. N times. 1 time.

Addn - $1 + (N+1) + N + 1 = 2N + 3$

i	N	
0	4	0 < 4
1	4	1 < 4
2	4	2 < 4
3	4	3 < 4
4	4	4 < 4

```
int n=4;
for(int i=1;i<=n;i++){
    for(int j=1;j<=n;j++){
        System.out.println(i+" "+j);
    }
}
```

1 time. 1, N+1, N → (N+1) time. N × (N+1). 1, N+1, N → N+1. N × N = Outer loop × Inner loop. Outer loop. Inner loop