

* Problem statement :-

→ Take n as an input. Print odd numbers in decreasing sequence upto 0 & even numbers in increasing sequence upto N .

* Example :-

$N = 6$

Output :- 5, 3, 1, 2, 4

* Solution :-

→ We can have two recursive calls, one for printing the odd sequence & the other for printing the even sequence.

1) Recursive approach to print odd numbers in decreasing order till 0.

→ Base case :- $n \leq 0 \rightarrow$ return

→ For odd numbers \rightarrow print number \rightarrow call $(n-2)$

→ For even numbers \rightarrow skip printing \rightarrow call $(n-1)$ 6

2) Printing even numbers :-

→ Base case :- $(i \geq n) \rightarrow$ return

→ For even numbers \rightarrow print number \rightarrow call $(i+2, n)$ (Because we want to go till n)

→ For odd numbers \rightarrow skip printing \rightarrow call $(i+1, n)$

3) Main function

```
foo printSequence(n) {  
    printOddSequence(n);  
    printEvenSequence(i, n);  
}
```