Q.1 Dry run for n=4

i	j	star	Total star.
0	0	☆	1
1	0-1	☆☆	3
2	0-2	☆☆☆	6
3	0-3	☆☆☆☆	10

Time complexity $O(n^2)$.
Space Complexity : $O(1)$

Q.2. n = 8

i	j	output line.	total.
1	0-7	8 line	8
2	0-7	8 line.	16
4	0-7	8 line	24
8	0-7.	8 line.	32

Time complexity : $O(n \log n)$
Space complexity: $O(1)$.

Q.3. n = 20 (n/2) (n/2)

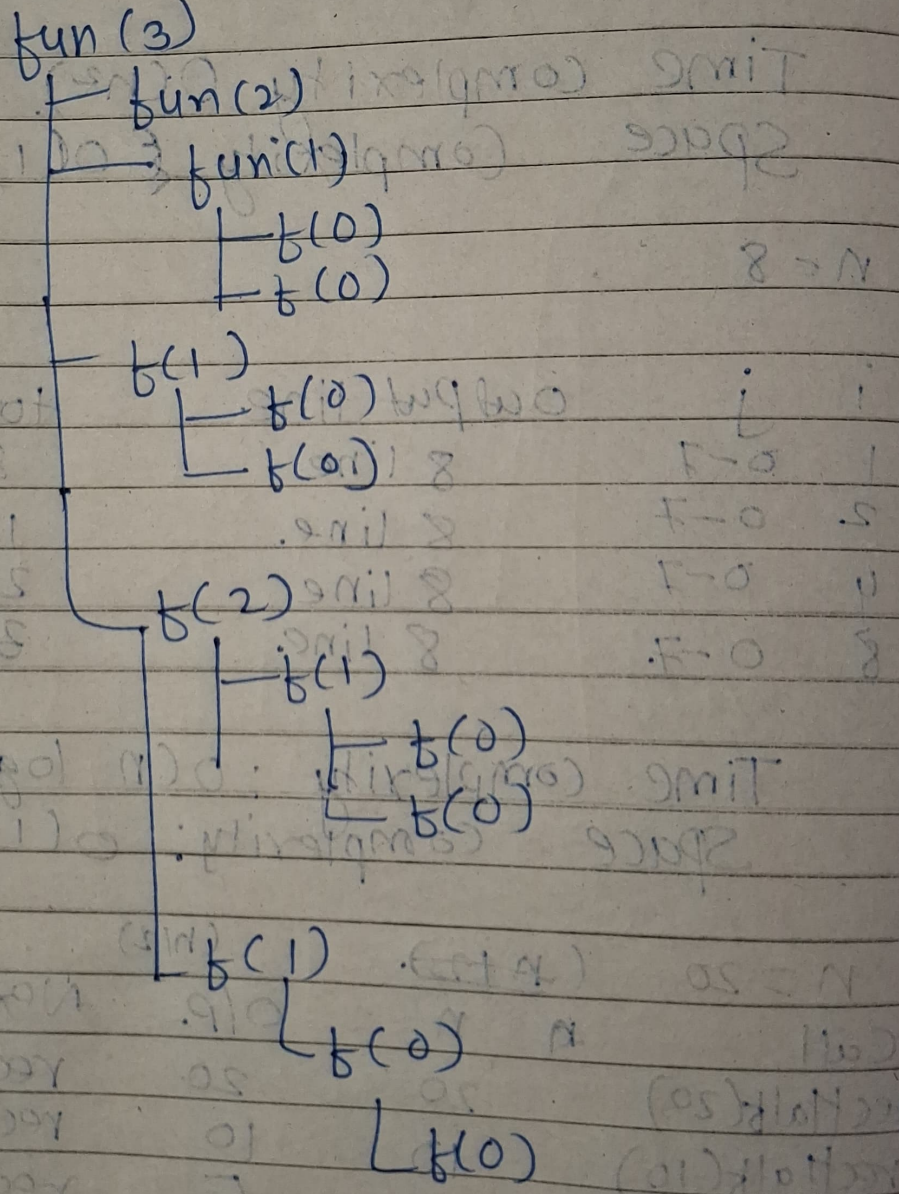
Call	n	O/P.	Next call.
rechalf(20)	20	20.	rechalf(10.)
rechalf(10)	10	10	rechalf(5)
rechalf(5)	5	5	rechalf(2)
rechalf(2)	2	2	rechalf(1)
rechalf(1)	1	1	rechalf(0).
rechalf(0)	0	—	returns.

value : 20, 10, 5, 2, 1.
recursive calls: 5.

Time: $\log_2 n + 1$

Space: $O(\log n)$

Q.4. n = 3.



Total calls = 15.

Time:- $O(2^n)$

space: $O(n)$

Q.5. n=5.

loop i = 0, 1, 2.
j = 0, 1, 2, for each i
k = 0, 1, 2, for each i

iteration: 3x3x3 = 27

Time: $O(n^3)$
Space: $O(1)$.