Ex : int rec(int n) {

İf (n = = 1)

Return 1 ;

Else

Return rec(n/2) * 4 + n * n

}

a) in terms of n what does rec return to its original caller function?

$t_n = n^2 + n^2 \log_2 n$

b) What is the number of rec called in order to evaluate rec(n)?

$t_n = 1 + \log_2 n$

Ex : int rec(int n) {

İf (n = = 1) || (n == 2)

Return 1 ;

Else

Return rec(n/2) * 8 – rec(n/4) * 16 + n * n;

}

in terms of n what does rec return to its original caller function?

$t_n = n^2 - (5/4)\, n^2 \log_2 n + (2/4)\, n^2 (\log_2 n)^2$

Ex :

i/j	1	2	3	4	5
1	1	2	3	4	5
2	0	4	9	16	25
3	0	0	27	64	125
4	0	0	0	256	625
5	0	0	0	0	3125

J^i j>= 0

0 otherwise