

2-)

for best case table

	Step	freq	total
if (b == 0)	2	1	2
return 1	1	1	1

Total = 3 constant

$$T_{\text{best}}(n) = O(1) = \Omega(1) = \Theta(1)$$

For worst and Average case table

	Step	freq	total
if (b == 0)	2	1	2
answer = a	1	1	1
increment = a	1	1	1
for (i = 1; i < b; i++)	1	1	1
for (i = 1; i < b; i++)	1	b	b
for (i = 1; i < b; i++)	1	b-1	b-1
for (j = 1; j < a; j++)	1	b-1	b-1
for (j = 1; j < a; j++)	1	a	a
for (j = 1; j < a; j++)	1	a-1	a-1
answer += increment	2	(b-1)(a-1)	2ab - 2a - 2b + 2
increment = answer	1	b-1	b-1
return answer	1	1	1

$$\text{Total} = 2ab + 2b + 4$$

$$T_{\text{Average}}(n) = T_{\text{worst}}(n) = O(ab) = \Omega(ab) = \Theta(ab) = \Theta(n^2)$$