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## Homework 8

4-3 2	T(n)=4T(1/3)+nlgn	
1)	a=4 6=3 f(n)=nlgn	
(5	nlogba = nlogs4 16 log34 62	
3)	n'est > n'lan (case 1)	
4)	f(n) = n'lgn = 0(n'0534-E)	
	n'lgn = n 10934-E	
	1 = 10934-6	
BOOK WITH	E=10934-1301	
5)	T(n)= \(\text{G}(n^{16534})\)	

4-3 0	T(n)=4T(=2)+12-5n
0	a=4 b=2 f(n)=n2 sn
2)	n 10960 = n 10924 = n2
3)	$n^2 = n^2 \sqrt{n}$ (case 2)
4)	f(n) = n2 5n = O(n loge4+E)
	Epsilon 25 not applicable for case 2
5)	T(n) = O(n²lgn)

4-3 2]	T(n)=3T(1/3-2)+1/2
1)	a=3 b=3 fln)=1/2
	n logsa = n log =3 = n1
	n'=1/2n' (case 2)
4)	f(n)= 1/2 = (n')
	E not applicable
5)	T(n)=O(n/gn)