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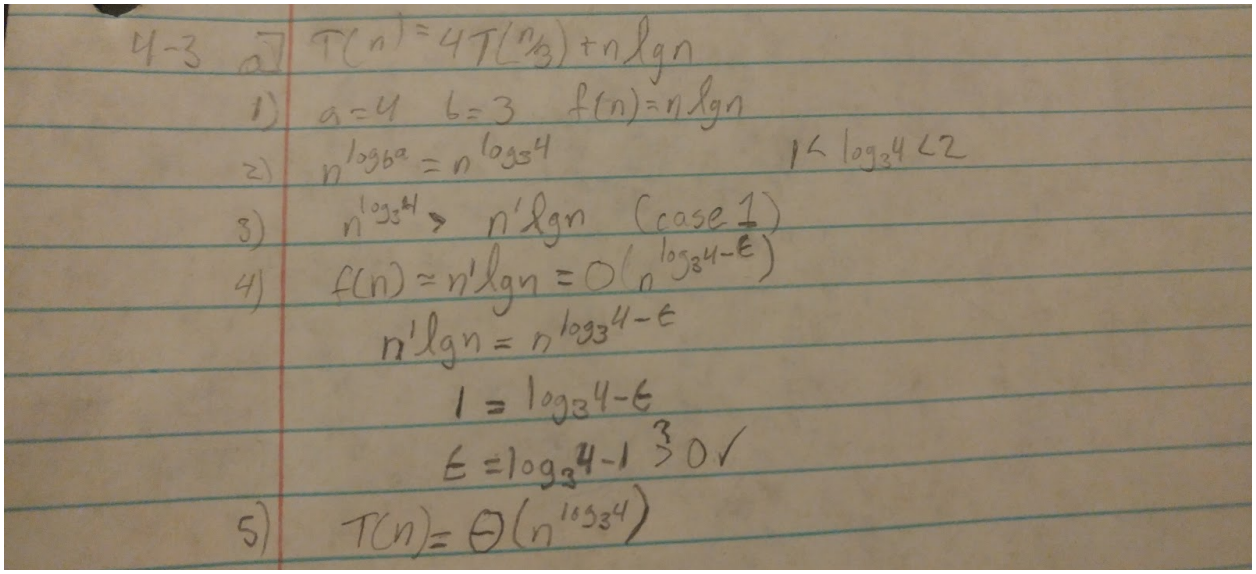
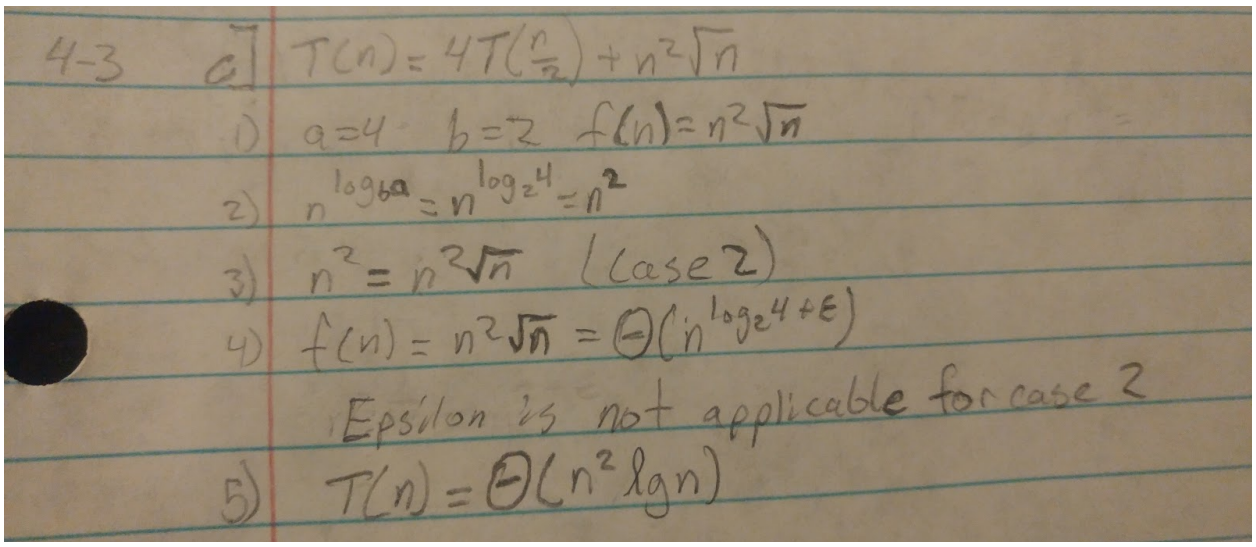
Dr. Otte
CS421
5 December 2018

Homework 8





4-3 d] $T(n) = 3T(n/3 - 2) + n/2$

1) $a = 3 \quad b = 3 \quad f(n) = n/2$

2) $n^{\log_b a} = n^{\log_3 3} = n^1$

3) $n^1 = \frac{1}{2} n^1$ (case 2)

4) $f(n) = n/2 = \Theta(n^1)$

ϵ not applicable

5) $T(n) = \Theta(n \lg n)$