This thread is part of the proposed schedule for study for the first exam. Discuss the practice problems here.  
View questions here: http://beastie.cs.ua.edu/concepts/cs/al/recurrences.html  
This thread covers questions 106-136 of recurrences.

Work together on the proposed answers to questions on this shared Google Doc (comment reasoning/arguments behind answers)

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Subject: Re: Concept Reivew: Recurrences (Part 4)  
Posted by Witherspoon on Mon, 20 Feb 2017 02:01:41 GMT

For this question, I saw on the Google doc that someone answered 1/7 as the smallest listed value for c.

Why would it not be 1/9 instead? Any input is greatly appreciated.

Happy studying everyone!

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Subject: Re: Concept Reivew: Recurrences (Part 4)  
Posted by SSinischo on Mon, 20 Feb 2017 03:38:26 GMT

The regularity condition is $af(n/b) \leq cf(n)$.

$a=8$, $b=8$, $f(n)=n^2$

$8f(n/8) \leq cf(n)$

$8n^2/64 \leq cn^2$

$n^2/8 \leq cn^2$

So $c \geq 1/8$. 