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Question: Fill in the last line of the three empty rows, which shows the siz...

6. (3 pts) Fill in the last line of the three empty rows, which shows the size of a problem can be solved in the **same amount of time** for each complexity class on a new machine that **runs nine as fast as the old one**. Solve by hand when you can, use Excel or a calculator when you must. I used a calculator only for $O(N \log_2 N)$ and solved it to 3 significant digits. Solving a problem in the same amount of time on the new/faster machine is equivalent to solving a problem that takes nine times the amount of time on the old machine. See $O(N)$ for an example.

N = Problem Size	Complexity Class	Time to Solve on Old Machine (secs)	N Solvable in the same Time on a New Machine 9x as Fast
10^6	$O(\log_2 N)$	1	
10^6	$O(N)$	1	9×10^6
10^6	$O(N \log_2 N)$	1	
10^6	$O(N^2)$	1	

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Expert Answer

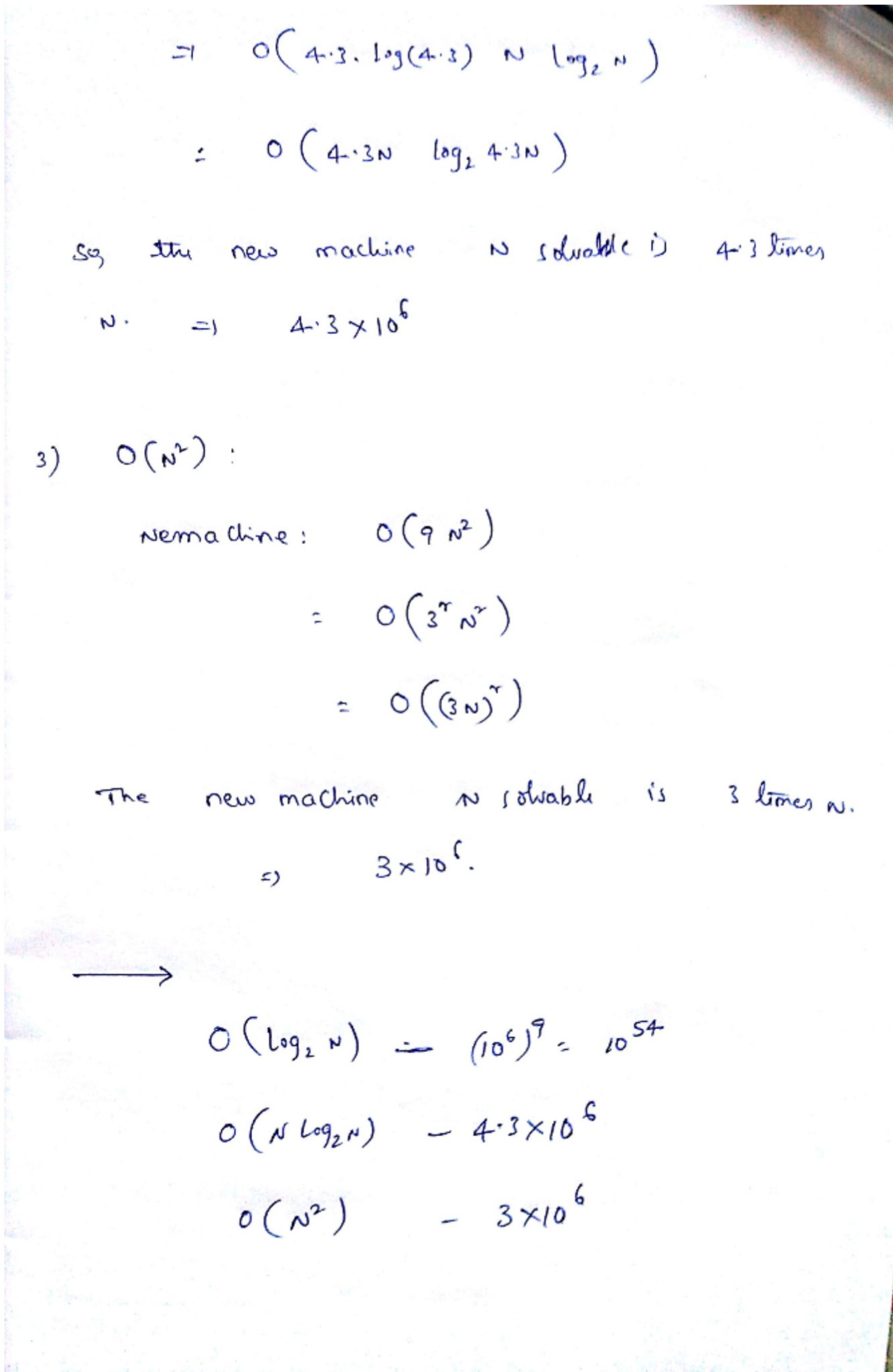
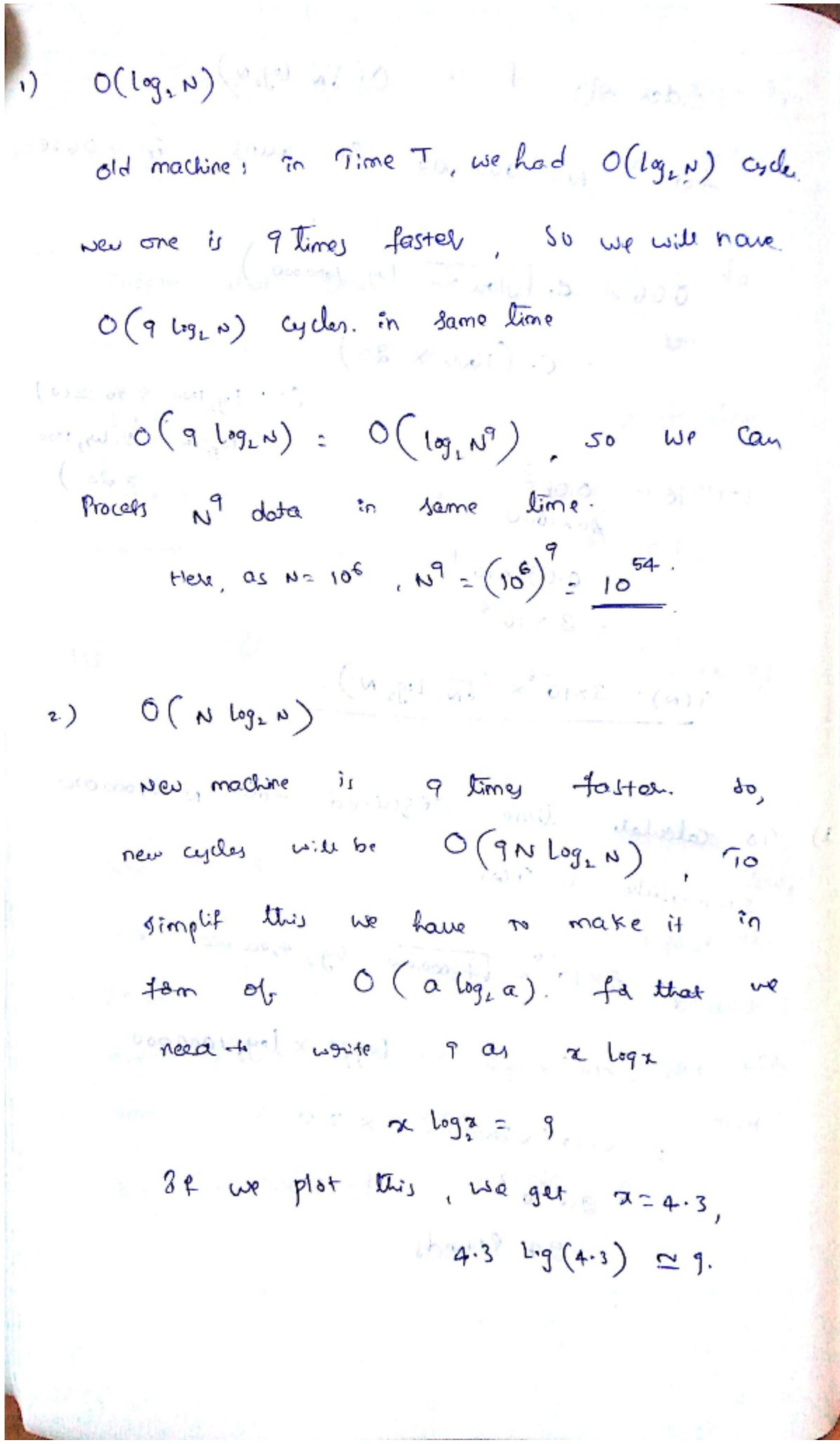


Anonymous answered this
123 answers

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Up next for you in Computer Science

need help in C# language.

See answer

(2 pts) (a) What "better-known"/simpler complexity class is equivalent to $O(N \log N^2)$; briefly explain why. (b) Explain under what conditions $\text{sorted}(\text{set}())$ runs faster than $\text{set}(\text{sorted}())$ for a

See answer

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Q: 6. (3 pts) Fill in the last line of the three empty rows, which shows the size of a problem can be solved in the same amount of time for each complexity class on a new machine that runs sixteen as fast as the old one. Solve by hand when you can, use Excel or a calculator when you must: I used a calculator only for $O(N \log_2 N)$ and solved it to 3 significant digits. Solving a problem...

A: See answer

Q: Can someone pls help me with number 6 asap ?

A: See answer

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