Lab Assignment 6

Solve all the recurrence relations given below and upload the scanned copy of your lab assignment

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Problem 1-1. $T(n) = 3T(n/2) + n^2$

Problem 1-2. $T(n) = 7T(n/2) + n^2$

Problem 1-3. $T(n) = 4T(n/2) + n^2$

Problem 1-4. $T(n) = 3T(n/4) + n \lg n$

Problem 1-5. $T(n) = 4T(n/2) + \lg n$

Problem 1-6. $T(n) = T(n-1) + n$

Problem 1-7. $T(n) = 4T(n/2) + n^2 \lg n$

Problem 1-8. $T(n) = 5T(n/2) + n^2 \lg n$

Problem 1-9. $T(n) = 3T(n/3) + n/\lg n$

Problem 1-10. $T(n) = 2T(n/4) + c$

Problem 1-11. $T(n) = T(n/4) + \lg n$

Problem 1-12. $T(n) = T(n/2) + T(n/4) + n^2$

Problem 1-13. $T(n) = 2T(n/4) + \lg n$

Problem 1-14. $T(n) = 3T(n/3) + n \lg n$

Problem 1-15. $T(n) = 8T((n - \sqrt{n})/4) + n^2$

Problem 1-16. $T(n) = 2T(n/4) + \sqrt{n}$

Problem 1-17. $T(n) = 2T(n/4) + n^{0.51}$

Problem 1-18. $T(n) = 16T(n/4) + n!$

Problem 1-19. $T(n) = 3T(n/2) + n$

Problem 1-20. $T(n) = 4T(n/2) + cn$

Problem 1-21. $T(n) = 3T(n/3) + n/2$

Problem 1-22. $T(n) = 4T(n/2) + n/\lg n$

Problem 1-23. $T(n) = 7T(n/3) + n^2$

Problem 1-24. $T(n) = 8T(n/3) + 2^n$

Problem 1-25. $T(n) = 16T(n/4) + n$