

MATH 22200
List of Practice Problems for the Final Exam

1. 6.6 Exponential and Log. functions	25,41
2. 6.7 Derivatives of the logarithmic function	19,22,39
3. 6.8 Derivatives of the exp. function	15,17,18,28
4. 6.9 L'Hopital's Rule	13,14
5. 6.10 Applications	1,3,5
6. 6.11 Newton's Method	3,10 (recommended, not a must)
7. 7.1 The power formula again	12,13,25
8. 7.2 The log. and exp. forms	7,15,22,23,44
9. 7.3 Trigonometric forms	17,18,23,24,32
10. 7.4 Futher trigonometric forms	8,11,32,37
11. 7.5 Inverse trigonometric forms	9,13,27
12. 7.6 Integration by trig. substitution	1,2,3
13. 7.7 Integration by parts	3,4,7,15,20,26
14. 7.8 Integration of rational functions	1,4,22
15. 10.1 Introduction to infinite series	2,8
16. 10.2 Tests for Convergence (if time allows)	1,2,7
17. 10.3 Maclaurin series	2,5,7 (no graphing)
18. 10.4 Operations with series	7,9,10
19. 10.5 Computations with series	5,11
20. 10.6 Fourier series	1,2,7
21. 11.1 What is a differential equation?	4,5
22. 11.2 Separation of variables	5,17,27
23. 11.3 First order linear differential equations	3,5,7,19
24. 11.4 Applications	3,8
25. 12.1 Higher-order homogeneous dif. equations	3,9,12
26. 12.2 Auxiliary eqs with Repeated or complex roots	1,15,23,32
27. 12.3 Nonhomogeneous equations	9,10,22
28. 12.4 Applications	1,2
29. 13.1 Introduction and Basic Properties	Ex.1,9
30. 13.2 Inverse Laplace Transforms	Ex.1,22,23,37
31. 13.3 Partial Fractions	Ex.1,39,40
32. 13.4 Solution of Linear Eqs by Laplace Transforms	6,12,17,23