

TABLE OF CONTENTS

Chapter 11. VECTORS AND CURVES	829
11-1. Introduction	829
Solutions Exercises 11-1	829
11-2. Vector Algebra	830
Solutions Exercises 11-2	830
11-3. Solutions Exercises 11-3	837
11-4. Products of Two Vectors	852
Solutions Exercises 11-4	853
11-5. Vector Calculus and Curves	865
Solutions Exercises 11-5	866
11-6. Curves in the Plane	883
Solutions Exercises 11-6	885
Solutions Miscellaneous Exercises	903
Chapter 12. MECHANICS	915
12-1. Introduction	915
Solutions Exercises 12-1	917
12-2. Elementary Mechanical Problems	919
Solutions Exercises 12-2	919
12-3. Constraints: Use of Energy Conservation	939
Solutions Exercises 12-3	940
12-4. Solutions Exercises 12-4	956
Solutions Miscellaneous Exercises	961
Chapter 13. NUMERICAL ANALYSIS	969
13-1. Introduction	969
Solutions Exercises 13-1	969
13-2. Iteration.	976
Solutions Exercises 13-2	977
13-3. Taylor's Theorem	986
Solutions Exercises 13-3	986
13-4. Numerical Integration	1010
Solutions Exercises 13-4	1010
13-5. Numerical Solution of First Order Differential Equations . .	1021
Solutions Exercises 13-5	1021
Solutions Miscellaneous Exercises	1024

Chapter 14. SEQUENCES AND SERIES	1033
14-1. Introduction	1033
14-2. Convergence of Sequences	1034
Solutions Exercises 14-2	1035
14-3. Solutions Exercises 14-3	1044
14-4. Solutions Exercises 14-4	1052
14-5. Parentheses and Rearrangements	1054
Solutions Exercises 14-5	1054
14-6. Sequences of Functions: Uniform Convergence	1056
Solutions Exercises 14-6	1056
14-7. Solutions Exercises 14-7	1060
Solutions Miscellaneous Exercises	1063
Chapter 15. GEOMETRICAL OPTICS AND WAVES	1077
15-2. Solutions Exercises 15-2	1077
15-3. Solutions Exercises 15-3	1083
15-4. Solutions Exercises 15-4	1091
15-6. Solutions Exercises 15-6	1093
15-7. Solutions Exercises 15-7	1096
15-8. Solutions Exercises 15-8	1097