

TABLE OF CONTENTS

Chapter 6. AREA AND INTEGRAL	481
6-1. Solutions Exercises 6-1	482
6-2. Solutions Exercises 6-2	486
6-3. Solutions Exercises 6-3	491
6-4. Solutions Exercises 6-4	502
6-5. Solutions Exercises 6-5	523
Solutions Miscellaneous Exercises	530
Chapter 7. BASIC INTEGRAL THEOREMS	541
7-1. Solutions Exercises 7-1	541
7-2. Solutions Exercises 7-2	544
7-3. The Fundamental Theorem	546
Solutions Exercises 7-3	547
7-4. Formal Integration	557
Solutions Exercises 7-4	557
7-5. Estimates of Integrals	562
Solutions Exercises 7-5	562
Solutions Miscellaneous Exercises	568
Chapter 8. LOGARITHMIC AND EXPONENTIAL FUNCTIONS	581
8-1. Introduction	581
Solutions Exercises 8-1	582
8-2. Solutions Exercises 8-2	586
8-3. Solutions Exercises 8-3	597
8-4. Solutions Exercises 8-4	604
8-5. The Differential Equations of e^x , $\sin x$, $\cos x$	613
Solutions Exercises 8-5	613
8-6. The Number e	619
Solutions Exercises 8-6	619
8-7. The Hyperbolic Functions	628
Solutions Exercises 8-7	628
Solutions Miscellaneous Exercises	636

Chapter 9. GROWTH, DECAY AND COMPETITION	653
9-2. Solutions Exercises 9-2	655
9-3. Solutions Exercises 9-3	661
9-5. Solutions Exercises 9-5	678
 Chapter 10. INTEGRATION	687
10-1. Solutions Exercises 10-1	688
10-2. Solutions Exercises 10-2	692
10-3. Substitutions of Circular Functions	701
Solutions Exercises 10-3	701
10-4. Integration by Parts	711
Theorem 10-4	711
Solutions Exercises 10-4	711
10-5. Integration of Rational Functions	722
Solutions Exercises 10-5	723
10-6. Definite Integrals	728
Solutions Exercises 10-6a	730
Solutions Exercises 10-6b	735
10-7. Linear Differential Equations of First Order	752
Solutions Exercises 10-7	752
10-8. Linear Differential Equations of Second Order	764
Solutions Exercises 10-8a	764
Solutions Exercises 10-8b	769
10-9. Separable Differential Equations	778
Solutions Exercises 10-9	778
Solutions Miscellaneous Exercises	782

APPENDICES

A6-1. Integration by Summation Techniques	801
Solutions Exercises A6-1	801
A6-2. Existence of the Integral	803
Solutions Exercises A6-2	803
A7. Integrability of Continuous Functions	809
A7-1. Solutions Exercises A7-1	810
A7-2. Solutions Exercises A7-2	813
A8. Solutions Exercises A8	821
A10. Convergence of Improper Integrals	825
Solutions Exercises A10	825