

# Contents

Preface	ix
Introduction	1
Chapter 1. Growth of Algebras	5
Chapter 2. Gelfand-Kirillov Dimension of Algebras	13
Chapter 3. Gelfand-Kirillov Dimension of Related Algebras	23
Chapter 4. Localization	37
Chapter 5. Modules	51
Chapter 6. Graded and Filtered Algebras and Modules	61
Chapter 7. Almost Commutative Algebras	73
Chapter 8. Weyl Algebras	87
Chapter 9. Enveloping Algebras of Solvable Lie Algebras	109
Chapter 10. Polynomial Identity Algebras	125
Chapter 11. Growth of Groups	139
Chapter 12. New Developments	153
§12.1. Notes on Chapter 1	153

§12.2. Notes on Chapter 2	155
§12.3. Notes on Chapter 3	163
§12.4. Notes on Chapter 4	167
§12.5. Notes on Chapter 5	170
§12.6. Notes on Chapter 6	173
§12.7. Notes on Chapter 7	182
§12.8. Notes on Chapter 8	183
§12.9. Notes on Chapter 9	187
§12.10. Notes on Chapter 10	191
§12.11. Notes on Chapter 11	195
Bibliography	199
Index	209