

## CONTENTS

Preface . . . . .	vii
Provably Recursive Functionals of Analysis: A Consistency Proof of Analysis by an Extension of Principles Formulated in Current Intuitionistic Mathematics . . . . .	1
By Clifford Spector	
Representability of Sets in Formal Systems . . . . .	29
By Andrzej Mostowski	
Herbrand-Gödel-Style Recursive Functionals of Finite Types . . . . .	49
By S. C. Kleene	
Infinite Series of Isols . . . . .	77
By J. C. E. Dekker	
$\Omega - \Lambda$ . . . . .	97
By John Myhill	
Arithmetically Isolated Sets and Nonstandard Models . . . . .	105
By A. Nerode	
Algebras of Sets Binumerable in Complete Extensions of Arithmetic . . . . .	117
By Dana Scott	
Some Problems in Hierarchy Theory . . . . .	123
By J. W. Addison	
The Form of the Negation of a Predicate . . . . .	131
By J. R. Shoenfield	
Applications of Recursive Function Theory to Number Theory . . . . .	135
By Martin Davis	
Sequence Generators and Digital Computers . . . . .	139
By A. W. Burks and J. B. Wright	
The Treatment of Ambiguity and Paradox in Mechanical Languages . . . . .	201
By Saul Gorn	
Computer Programs for Checking Mathematical Proofs . . . . .	219
By John McCarthy	
Size and Structure of Universal Turing Machines Using Tag Systems . . . . .	229
By M. L. Minsky	
Author Index . . . . .	239
Subject Index . . . . .	241