CONTENTS

Pretace	111
Contributors	vii
How Many Steps? Victor Klee	1
Polyhedral Maps on 2-manifolds David Barmette	7
Characterizing the Numbers of Faces of a Simplicial Convex Polytope Carl W. Lee	21
A Dual Proof of the Upper Bound Theorem Arne Brøndsted	39
Euler's Theorem and Where It Led G. Thomas Sallee	45
Mixed Volumes and Geometric Inequalities G. D. Chakerian	57
Intersections of Convex Sets and Surfaces Paul Goodey	63
Nonnegative, Motion-invariant Valuations of Convex Polytopes $Wolfgang\ Spiegel$	67
Convexity Theorems for Generalized Planar Configurations Jacob E. Goodman and Richard Pollack	73
Is There a Krasnoselskii Theorem for Finitely Starlike Sets? Bruce B. Peterson	81
Convex Caustics for Billiards in \mathbb{R}^2 and \mathbb{R}^3 Philip H. Turner	85
On Packing Curves into Circles Erwin Lutwak	107
A Perspective on Abstract Convexity: Classifying Alignments by Varieties	
Robert E. Jamison-Waldner	113

/i		CONTENTS

Open Problems Around Radon's Theorem John R. Reay	151
Generalizations of Helly's Theorem; Open Problems Gerard Sierksma	173
Unimorphies of Subsets of Hausdorff Locally Convex Vector Spaces René Fourneau	193
Tiling R ^d by Translates of the Orthants Jim Lawrence	203
Eberhard's Theorem for Convex 3-Polytopes **Joseph Malkevitch**	209
Graphical Difference Sets and Projective Planes Andrew Sobczyk	215
Tiling the Plane with Incongruent Regular Polygons Hans Herda	225
Problems	229
Author Index	235
Problem Index	237
Subject Index	239