

Contents

Preface	
S. TABACHNIKOV	ix
The Arithmetic of Binomial Coefficients	
D. B. FUCHS AND M. B. FUCHS	1
Do You Like Messing Around with Integers?	
M. I. BASHMAKOV	13
On Bertrand's Conjecture	
M. I. BASHMAKOV	21
On Best Approximations. I	
D. B. FUCHS AND M. B. FUCHS	27
On Best Approximations. II	
D. B. FUCHS AND M. B. FUCHS	37
On a Certain Property of Binomial Coefficients	
A. I. SHIRSHOV	49
On $n!$ and the Number e (Several Approaches to a Certain Problem)	
L. G. LIMANOV	57
Rational Approximations and Transcendence	
D. B. FUCHS AND M. B. FUCHS	65
Close Fractions	
V. N. VAGUTEN	71
On the Equation $\binom{n}{m} = \binom{n+1}{m-1}$	
A. I. SHIRSHOV	83
On Regular Polygons, Euler's Function, and Fermat Numbers	
A. KIRILLOV	87
2-adic numbers	
B. BEKKER, S. VOSTOKOV, AND YU. IONIN	99
On the Number e	
E. KUZ'MIN AND A. I. SHIRSHOV	111
Markov's Diophantine Equation	
M. G. KREIN	121

The Arithmetic of Gaussian Integers A. B. GONCHAROV	127
Three Formulas of Ramanujan V. S. SHEVELEV	139
Amazing Adventures in the Land of Repeating Decimals V. G. STOLYAR, E. A. KURAEV, Z. K. SILOGADZE, G. A. GAL'PERIN, AND A. V. KORLYUKOV	145