#   <br> The Fibonacci Quarterly <br> THE OFFICIAL JOURNAL OF <br> THE FIBONACCI ASSOCIATION 

VOLUME 16
NUMBER 2

## CONTENTS

More Fibonacci Functions M. W. Bunder ..... 97
Pellian Diophantine Sequences A. G. Shannon 99
Some Results for Generalized Bernoulli, Euler, Stirling Numbers ..... L. Toscano 103
Expansion Pamela Graves Smith ..... 112
A Combinatorial Problem Involving Recursive Sequences
and Tridiagonal Matrices G. E. Bergum and V. E. Hoggatt, Jr. ..... 113
On the Formula $\pi=2 \Sigma$ arcot $f_{2 k+1}$ Peter G. Anderson ..... 118
Fibonacci Sine Sequences M. B. Gregory and J. M. Metzger 119
General Identities for Linear Fibonacci and Lucas Summations Rodney T. Hansen ..... 121
An Inequality for a Class of Polynomials David Zeitlin ..... 128
A Primer for the
Fibonacci Numbers XVII . . . . V. E. Hoggatt, Jr., and Marjorie Bicknell-Johnson ..... 130
Generalized Eulerian Numbers and Polynomials. . .L.Carlitz and V. E. Hoggatt, Jr. ..... 138
Wythoff Pairs A. F. Horadam ..... 147
Geometric Sequences and the Initial Digit Problem ..... Raymond E. Whitney 152
A Second Variation on a Problem of Diophantus and Davenport Burton W. Jones ..... 155
On Generalized $G_{j^{\prime}, k}$ Numbers W. E. Greig ..... 166
The Fluid Mechanics of Bubbling Beds F. A. Zenz ..... 171
Elementary Problems and Solutions Edited by A. P. Hillman ..... 184
Advanced Problems and Solutions Edited by Raymond E. Whitney ..... 188

# דुe Fibonacci Quarterly <br> THE OFFICIAL JOURNAL OF THE FIBONACCI ASSOCIATION <br> DEVOTED TO THE STUDY <br> OF INTEGERS WITH SPECIAL PROPERTIES 

EDITOR
V. E. Hoggatt, Jr.

CO-EDITOR
Gerald E. Bergum

## EDITORIAL BOARD

| H. L. Alder |  | David A. Klarner |
| :---: | :---: | :---: |
| Gerald E. Bergum |  | Leonard Klosinski |
| Marjorie Bicknell-Johnson |  | Donald E. Knuth |
| Paul F. Byrd |  | C. T. Long |
| L. Carlitz |  | M. N. S. Swamy |
| H. W. Gould |  | D. E. Thoro |
| A. P. Hillman |  |  |
|  | WITH THE COOPERATION OF |  |
| Maxey Brooke |  | James Maxwell |
| Bro. A. Brousseau |  | Sister M. DeSales |
| Calvin D. Crabill |  | McNabb |
| T. A. Davis |  | John Mitchem |
| A. F. Horadam |  | D. W. Robinson |
| Dov Jarden |  | Lloyd Walker |
| L. H. Lange |  | Charles H. Wall |

The California Mathematics Council
All subscription correspondence should be addressed to Professor Leonard Klosinski, Mathematics Department, University of Santa Clara, Santa Clara, California 95053. All checks ( $\$ 15.00$ per year) should be made out to the Fibonacci Association or The Fibonacci Quarterly. Two copies of manuscripts intended for publication in the Quarterly should be sent to Verner E. Hoggatt, Jr., Mathematics Department, San Jose State University, San Jose, California 95192. All manuscripts should be typed, double-spaced, Drawings should be made the same size as they will appear in the Quarterly, and should be done in India ink on either vellum or bond paper. Authors should keep a copy of the manuscript sent to the editors.

The Quarterly is entered as third-class mail at the University of Santa Clara Post Office, California, as an official publication of the Fibonacci Association.

The Quarterly is published in February, April, October, and December, each year.

