Volume Information

The American Mathematical Monthly, Vol. 106, No. 10. (Dec., 1999)

Stable URL:
http://links.jstor.org/sici?sici=0002-9890%28199912%29106%3A10%3C%3AVI%3E2.0.CO%3B2-O

The American Mathematical Monthly is currently published by Mathematical Association of America.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at http://www.jstor.org/about/terms.html. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at http://www.jstor.org/journals/maa.html.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

http://www.jstor.org
Sat Dec 22 05:42:32 2007

INDEX TO VOLUME 106, 1999
THE AMERICAN MATHEMATICAL MONTHLY

TITLE INDEX

Accompaniment to Higher Mathematics, An. By George R. Exner; reviewed by Joseph H. Silverman, 272

African Fractals: Modern Computing and Indigenous Design. By Ron Eglash; reviewed by James V. Rauff, 872

Another Short Proof of Ramanujan's Mod 5 Partition Congruence, and More, Michael D. Hirschhorn, 580

Answer is $2^n \cdot n!$ What's the Question?, The, Gary Gordon, 636

Approximation of Hölder Continuous Functions by Bernstein Polynomials, Peter Mathé, 568

Area of the Medial Parallelogram of a Tetrahedron, The, David N. Yetter, 956

Basic Practice of Statistics, The. By David S. Moore; reviewed by Frederick Leysieffer, 181

Beggar My Neighbour, Marc M. Paulhus, 162

Bieberbach Conjecture and Milin's Functionals, The, Arcadii Z. Grinshpan, 203

Birth of Literal Algebra, The, I. G. Bashmakova and G. S. Smirnova, 57

Cayley Addition Table of Z_n, The, Hunter S. Snevily, 584

Change of Variables in Multiple Integrals, Peter D. Lax, 497

Chaos, Cantor Sets, and Hyperbolicity for the Logistic Maps, Roger L. Kraft, 400

Characteristic Property of Differentiation, A, Khristo Boyadzhiev, 353

Characterization of the Set of Points of Continuity of a Real Function, A, Sung Soo Kim, 258

Cluster Primes, Richard Blecksmith, Paul Erdös, and J. L. Selfridge, 43

Conditional Convergence of Infinite Products, William F. Trench, 646

Conway's ZIP Proof, George K. Francis and Jeffrey R. Weeks, 393

Counting Formula for Primitive Tetrahedra in $\mathbf{Z}^3$, A, Mizan R. Khan, 525

Cryptographic Imagination: Secret Writing from Edgar Poe to the Internet, The. By Shawn James Rosenheim; reviewed by Jeffrey Shallit, 85

Curves Whose Curvature Depends on Distance from the Origin, David A. Singer, 835

Cutting a Polyomino into Triangles of Equal Areas, Sherman K. Stein, 255

Decision Making: A Golden Rule, Dimitris A. Sardelis and Theodoros M. Valahas, 215

Descartes' Rule of Signs: Another Construction, David J. Grabiner, 854

Determinants of Commuting-Block Matrices, Istvan Kovacs, Daniel S. Silver, and Susan G. Williams, 950

Dirichlet Problem for Ellipsoids, The, John A. Baker, 829

Does Mathematics Need New Axioms?, Solomon Feferman, 99

Education of a Pure Mathematician, The, Bruce Pourciau, 720

Effects of Calculus Reform: Local and National, James F. Hurley, Uwe Koehn, and Susan L. Ganter, 800

Elegant Continued Fraction for π, An, L. J. Lange, 456

Elementary Proof of Binet's Formula for the Gamma Function, An, Zoltán Sasvári, 156

Elementary View of Euler's Summation Formula, An, Tom M. Apostol, 409

Emerging Tools for Experimental Mathematics, Jonathan M. Borwein and Robert M. Corless, 889

Example of Jacobson, On an, B. Sury, 675

Existence Proofs, Fred Richman, 303

Extension of the Wallace-Simson Theorem: Projecting in Arbitrary Directions, An, Miguel de Guzmán, 574

Fermat's Last Theorem for Gaussian Integer Exponents, John A. Zuehlke, 49

Field Theory: From Equations to Axiomatization. Part I, Israel Kleiner, 677

Field Theory: From Equations to Axiomatization. Part II, Israel Kleiner, 859

Fifty-Ninth William Lowell Putnam Mathematical Competition, The, Leonard F. Klosinski, Gerald L. Alexanderson, and Loren C. Larson, 842
Forced Damped Pendulum: Chaos, Complication and Control, The, John H. Hubbard, 741
Four-Color Theorem, The. By Rudolf Fritsch and Gerda Fritsch; reviewed by John A. Koch, 785
French Mathematician, The. By Tom Petsinis; reviewed by Tony Rothman, 369
Generalized "Lanczos' Generalized Derivative", On the, Jianhong Shen, 766
George Green: An Enigmatic Mathematician, D. M. Cannell, 136
Gottschalk-Hedlund Theorem, The, Randall McCutcheon, 670
H. J. S. Smith and the Fermat Two Squares Theorem, F. W. Clarke, W. N. Everitt, L. L. Littlejohn, and S. J. R. Vorster, 652
Handbook of Applied Cryptography. By Alfred J. Menezes, Paul C. van Oorschot, and Scott A. Vanstone; reviewed by Jeffrey Shallit, 85
Hopping Hoop Revisited, The, Timothy Pritchett, 609
Hopping Hoops Don't Hop, James P. Butler, 565
Hyperbolic Pythagorean Theorem in the Poincaré Disc Model of Hyperbolic Geometry, The, Abraham A. Ungar, 759
Imaginary Tale: The Story of $(-1)^{1/2}$, An. By Paul J. Nahin; reviewed by Ricardo Diaz, 593
Inequality Relating the Circumradius and Diameter of Two-Dimensional Lattice-Point-Free Convex Bodies, An, Poh Wah Awyong, 252
Integrating Polynomials in Secant and Tangent, Jonathan P. McCammond, 856
Introduction to Algebra. By Peter J. Cameron; reviewed by Cynthia Woodburn, 481
Introduction to Metric-Preserving Functions, Paul Corazza, 309
Introductory Course in Commutative Algebra, An. By A. W. Chatters and C. R. Hajarnavis; reviewed by Cynthia Woodburn, 481
Inverse Conjugacies and Reversing Symmetry Groups, Geoffrey R. Goodson, 19
Is The Composite Function Integrable?, Jitan Lu, 763
Isoperimetric Problem on Surfaces, The, Hugh Howards, Michael Hutchings, and Frank Morgan, 430
Jacobi Symbols and Continued Fractions, A Note on, A. J. van der Poorten and P. G. Walsh, 52
Journey Into Mathematics: An Introduction to Proofs. By Joseph Rotman; reviewed by Joseph H. Silverman, 272
Large Torsional Oscillations in Suspension Bridges Revisited: Fixing an Old Approximation, P. J. McKenna, 1
Leaning Towards Infinity. By Sue Woolfe; reviewed by John Beebee and Karen Willmore, 594
Lexell's Theorem Via an Inscribed Angle Theorem, Hiroshi Maehara, 352
Life's Other Secret. By Ian Stewart; reviewed by Dan Schnabel, 478
Literal Calculus of Viète and Descartes, The, I. G. Bashmakova and G. S. Smirnova, 260
Magic "Squares" Indeed!, Arthur T. Benjamin and Kan Yasuda, 152
Magic Dice, Bernard D. Flury, Robert Irving, and M. N. Goria, 324
Magical Maze, The. By Ian Stewart; reviewed by Dan Schnabel, 478
Man Who Loved Only Numbers: The Story of Paul Erdös and the Search for Mathematical Truth, The. By Paul Hoffman; reviewed by Albert A. Mullin, 694
Mandelbrot Set, the Farey Tree, and the Fibonacci Sequence, The, Robert L. Devaney, 289
Marriage, Magic, and Solitaire, David B. Leep and Gerry Myerson, 419
Mathematical Excursion: From the Three-Door Problem to a Cantor-Type Set, A, Jaume Paradís, Pelegrí Viader, and Lluís Bibiloni, 241
Mathematical Thinking: Problem Solving and Proofs. By John P. D'Angelo and Douglas B. West; reviewed by Joseph H. Silverman, 272
Mathematics From the Birth of Numbers. By Jan Gullberg; reviewed by Arnold Allen, 77
Matrix Representation for Euler's Constant, γ, A, Frank K. Kenter, 452

Mean Value Theorem, A, Tadashi F. Tokieda, 673
Mixtilinear Incircles, Paul Yiu, 952
Modern Treatment of the 15 Puzzle, A, Aaron F. Archer, 793
MONTHLY Unsolved Problems, 1969-1999, Richard Nowakowski, 959
More on a Mean Value Theorem Converse, H. Fejzic and D. Rinne, 454
More on Paperfolding, Dmitry Fuchs and Serge Tabachnikov, 27
Multivariable Calculus and the Plus Topology, Daniel J. Velleman, 733
My Brain Is Open: The Mathematical Journeys of Paul Erdös. By Bruce Schechter; reviewed by Albert A. Mullin, 694
n-Ellipses and the Minimum Distance Sum Problem, Junpei Sekino, 193
Nelson Unit Distance Coloring Problem, On the, Carsten Thomassen, 850
Notes on Fermat's Last Theorem. By Alf van der Poorten; reviewed by Andrew Granville, 177
Number Theory and Semigroups of Intermediate Growth, Melvyn B. Nathanson, 666
Periods in Taking and Splitting Games, Ian Caines, Carrie Gates, Richard K. Guy, and Richard J. Nowakowski, 359
Physically Motivated Further Note on the Mean Value Theorem for Integrals, A, William J. Schwind, Jun Ji, and Daniel E. Koditschek, 559
Poincaré and the Three Body Problem. By June Barrow-Green; reviewed by Daniel Henry Gottlieb, 977
Primer on Wavelets for Scientists and Engineers, A. By James S. Walker; reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Random Walks and Plane Arrangements in Three Dimensions, Louis J. Billera, Kenneth S. Brown, and Persi Diaconis, 502
Rational Function Approximations to Square Roots, On, M. J. Jamieson, 50
Rationals and the Modular Group, Roger C. Alperin, 771
Reciprocity Law for Dedekind Sums via the Constant Ehrhart Coefficient, The, Matthias Beck, 459
Reform, Tradition, and Synthesis, Thomas W. Tucker, 910
Rental Harmony: Sperner's Lemma in Fair Division, Francis Edward Su, 930
Riemann's Dissertation and Its Effect on the Evolution of Mathematics, Detlef Laugwitz, 463
Set of Differences of a Given Set, The, Andrew Granville and Friedrich Roesler, 338
Short Proof of Turán's Theorem, A, William Staton, 257
Simple Proof of Rankin's Campanological Theorem, A, Richard G. Swan, 159
Six Ways of Looking at Burtin's Lemma, S. Anoulova, J. Bennies, J. Lenhard, D. Metzler, Y. Sung, and A. Weber, 345
Smallest Solution of $\phi(30n + 1) < \phi(30n)$ Is..., The, Greg Martin, 449
Social Constructivism as a Philosophy of Mathematics. By Paul Ernest; reviewed by Bonnie Gold, 373
Social Life of Numbers: A Quechua Ontology of Numbers and Philosophy of Arithmetic, The. By Gary Urton; reviewed by John Meier and Trisha Thorme, 275
Some Fundamental Control Theory I: Controllability, Observability and Duality, William J. Terrell, 705
Some Fundamental Control Theory II: Feedback Linearization of Single Input Nonlinear Systems, William J. Terrell, 812
Stability Theorem, A, Walter Rudin, 768
Statistical Independence and Normal Numbers: An Aftermath to Mark Kac's Carus Monograph, Gerald S. Goodman, 112
Tale of Two Integrals, A, Vilmos Totik, 227
TEAM Approach to Investing, The, Frank Gerth III, 553
Trigonometric Integrals and Hadamard Products, L. R. Bragg, 36
Two Uniformly Distributed Parameters Defining Catalan Numbers, David Callan, 948
Uniform Calculus and the Law of Bounded Change, Mark Bridger and Gabriel Stolzenberg, 628
Union of Vieta's and Wallis's Products for Pi, The, Thomas J. Osler, 774
Velocity Dependence of Aerodynamic Drag: A Primer for Mathematicians, The, Lyle N. Long and Howard Weiss, 127
Wavelet Analysis: The Scalable Structure of Information. By Howard L. Resnikoff and Raymond O. Wells, Jr.; reviewed by

Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Wavelets in a Box. By Charles K. Chui, Andrew K. Chan, and C. Steve Liu; reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Wavelets: A Primer. By Christian Blatter; reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Weighted Mixed-Mean Inequality, A, Kiran S. Kedlaya, 355
Weyr Characteristic, The, Helene Shapiro, 919
What Is a Closed-Form Number?, Timothy Y. Chow, 440
What is Mathematics, Really? By Reuben Hersh; reviewed by Bonnie Gold, 373
What Makes a Great Mathematics Teacher? The Case of Augustus De Morgan, Adrian Rice, 534
Which Tanks Empty Faster?, Leonid G. Hanin, 943
Why Dickson Left Quadratic Reciprocity Out of His *History of the Theory of Numbers*, Della Dumbaugh Fenster, 618
You Don't Need a Weatherman to Know Which Way the Wind Blows, Steven G. Krantz, 915
Yueh-Gin Gung and Dr. Charles Y. Hu Award for Distinguished Service to Leonard Gillman, Kenneth A. Ross, 97

AUTHOR INDEX

Aboufadel, Edward, Matthew Boelkins, and Steven Schlicker, reviewers, *Wavelets: A Primer.* By Christian Blatter, 971
Aboufadel, Edward, Matthew Boelkins, and Steven Schlicker, reviewers, *Wavelets in a Box.* By Charles K. Chui, Andrew K. Chan, and C. Steve Liu, 971
Aboufadel, Edward, Matthew Boelkins, and Steven Schlicker, reviewers, *A Primer on Wavelets for Scientists and Engineers.* By James S. Walker, 971
Aboufadel, Edward, Matthew Boelkins, and Steven Schlicker, reviewers, *Wavelet Analysis: The Scalable Structure of Information.* By Howard L. Resnikoff and Raymond O. Wells, Jr., 971
Alexanderson, Gerald L. *see Klosinski*
Allen, Arnold, reviewer, *Mathematics: From the Birth of Numbers.* By Jan Gullberg, 77
Alperin, Roger C., Rationals and the Modular Group, 771
Anoulova, S., J. Bennies, J. Lenhard, D. Metzler, Y. Sung, and A. Weber, Six Ways of Looking at Burtin's Lemma, 345
Apostol, Tom M., An Elementary View of Euler's Summation Formula, 409
Archer, Aaron F., A Modern Treatment of the 15 Puzzle, 793
Awyong, Poh Wah, An Inequality Relating the Circumradius and Diameter of Two-Dimensional Lattice-Point-Free Convex Bodies, 252
Baker, John A., The Dirichlet Problem for Ellipsoids, 829
Barrow-Green, June, *Poincaré and the Three Body Problem.* Reviewed by Daniel Henry Gottlieb, 977
Bashmakova, I. G., and G. S. Smirnova, The Birth of Literal Algebra, 57
Bashmakova, I. G., and G. S. Smirnova, The Literal Calculus of Viète and Descartes, 260
Beck, Matthias, The Reciprocity Law for Dedekind Sums via the Constant Ehrhart Coefficient, 459
Beebee, John, and Karen Willmore, reviewers, *Leaning Towards Infinity.* By Sue Woolfe, 594
Benjamin, Arthur T., and Kan Yasuda, Magic "Squares" Indeed!, 152
Bennies, J. *see Anoulova*
Bibiloni, Lluís *see Paradís*
Billera, Louis J., Kenneth S. Brown, and Persi Diaconis, Random Walks and Plane Arrangements in Three Dimensions, 502
Blatter, Christian, *Wavelets: A Primer.* Reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Blecksmith, Richard, Paul Erdös, and J. L. Selfridge, Cluster Primes, 43

Boelkins, Matthew *see Aboufadel*
Borwein, Jonathan M., and Robert M. Corless, Emerging Tools for Experimental Mathematics, 889
Boyadzhiev, Khristo, A Characteristic Property of Differentiation, 353
Bragg, L. R., Trigonometric Integrals and Hadamard Products, 36
Bridger, Mark, and Gabriel Stolzenberg, Uniform Calculus and the Law of Bounded Change, 628
Brown, Kenneth S. *see Billera*
Butler, James P., Hopping Hoops Don't Hop, 565
Caines, Ian, Carrie Gates, Richard K. Guy, and Richard J. Nowakowski, Periods in Taking and Splitting Games, 359
Callan, David, Two Uniformly Distributed Parameters Defining Catalan Numbers, 948
Cameron, Peter J., *Introduction to Algebra*. Reviewed by Cynthia Woodburn, 481
Cannell, D. M., George Green: An Enigmatic Mathematician, 136
Chan, Andrew K. *see Chui*
Chatters, A. W., and C. R. Hajarnavis, *An Introductory Course in Commutative Algebra*. Reviewed by Cynthia Woodburn, 481
Chow, Timothy Y., What Is a Closed-Form Number?, 440
Chui, Charles K., Andrew K. Chan, and C. Steve Liu, *Wavelets in a Box*. Reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Clarke, F. W., W. N. Everitt, L. L. Littlejohn, and S. J. R. Vorster, H. J. S. Smith and the Fermat Two Squares Theorem, 652
Corazza, Paul, Introduction to Metric-Preserving Functions, 309
Corless, Robert M. *see Borwein*
D'Angelo, John P., and Douglas B. West, *Mathematical Thinking: Problem Solving and Proofs*. Reviewed by Joseph H. Silverman, 272
de Guzmán, Miguel, An Extension of the Wallace-Simson Theorem: Projecting in Arbitrary Directions, 574
Devaney, Robert L., The Mandelbrot Set, the Farey Tree, and the Fibonacci Sequence, 289
Diaconis, Persi *see Billera*
Diaz, Ricardo, reviewer, *An Imaginary Tale: The Story of* $(-1)^{1/2}$. By Paul J. Nahin, 593
Eglash, Ron, *African Fractals: Modern Computing and Indigenous Design*. Reviewed by James V. Rauff, 872
Erdös, Paul *see Blecksmith*
Ernest, Paul, *Social Constructivism as a Philosophy of Mathematics*. Reviewed by Bonnie Gold, 373
Everitt, W. N. *see Clarke*
Exner, George R., *An Accompaniment to Higher Mathematics*. Reviewed by Joseph H. Silverman, 272
Feferman, Solomon, Does Mathematics Need New Axioms?, 99
Fejzic, H., and D. Rinne, More on a Mean Value Theorem Converse, 454
Fenster, Della Dumbaugh, Why Dickson Left Quadratic Reciprocity Out of His *History of the Theory of Numbers*, 618
Flury, Bernard D., Robert Irving, and M. N. Goria, Magic Dice, , 324
Francis, George K., and Jeffrey R. Weeks, Conway's ZIP Proof, 393
Fritsch, Gerda *see Fritsch, Rudolf*
Fritsch, Rudolf, and Gerda Fritsch, *The Four-Color Theorem*. Reviewed by John A. Koch, 785
Fuchs, Dmitry, and Serge Tabachnikov, More on Paperfolding, 27
Ganter, Susan L. *see Hurley*
Gates, Carrie *see Caines*
Gerth III, Frank, The TEAM Approach to Investing, 553
Gold, Bonnie, reviewer, *Social Constructivism as a Philosophy of Mathematics*. By Paul Ernest, 373
Gold, Bonnie, reviewer, *What is Mathematics, Really?* By Reuben Hersh, 373
Goodman, Gerald S., Statistical Independence and Normal Numbers: An Aftermath to Mark Kac's Carus Monograph, 112
Goodson, Geoffrey R., Inverse Conjugacies and Reversing Symmetry Groups, 19
Gordon, Gary, The Answer is $2^n \cdot n!$ What's the Question?, 636
Goria, M. N. *see Flury*
Gottlieb, Daniel Henry, reviewer, *Poincaré and the Three Body Problem*. By June Barrow-Green, 977

Grabiner, David J., Descartes' Rule of Signs: Another Construction, 854
Granville, Andrew, and Friedrich Roesler, The Set of Differences of a Given Set, 338
Granville, Andrew, reviewer, *Notes on Fermat's Last Theorem.* By Alf van der Poorten, 177
Grinshpan, Arcadii Z., The Bieberbach Conjecture and Milin's Functionals, 203
Gullberg, Jan, *Mathematics: From the Birth of Numbers.* Reviewed by Arnold Allen, 77
Guy, Richard K. *see Caines*
Hajarnavis, C. R. *see Chatters*
Hanin, Leonid G., Which Tanks Empty Faster?, 943
Hersh, Reuben, *What is Mathematics, Really?* Reviewed by Bonnie Gold, 373
Hirschhorn, Michael D., Another Short Proof of Ramanujan's Mod 5 Partition Congruence, and More, 580
Hoffman, Paul, *The Man Who Loved Only Numbers: The Story of Paul Erdös and the Search for Mathematical Truth.* Reviewed by Albert A. Mullin, 694
Howards, Hugh, Michael Hutchings, and Frank Morgan, The Isoperimetric Problem on Surfaces, 430
Hubbard, John H., The Forced Damped Pendulum: Chaos, Complication and Control, 741
Hurley, James F., Uwe Koehn, and Susan L. Ganter, Effects of Calculus Reform: Local and National, 800
Hutchings, Michael *see Howards*
Irving, Robert *see Flury*
Jamieson, M. J., On Rational Function Approximations to Square Roots, 50
Ji, Jun *see Schwind*
Kedlaya, Kiran S., A Weighted Mixed-Mean Inequality, 355
Kenter, Frank K., A Matrix Representation for Euler's Constant, γ, 452
Khan, Mizan R., A Counting Formula for Primitive Tetrahedra in $\mathbf{Z}^3$, 525
Kim, Sung Soo, A Characterization of the Set of Points of Continuity of a Real Function, 258
Kleiner, Israel, Field Theory: From Equations to Axiomatization. Part I, 677
Kleiner, Israel, Field Theory: From Equations to Axiomatization. Part II, 859
Klosinski, Leonard F., Gerald L. Alexanderson, and Loren C. Larson, The Fifty-Ninth William Lowell Putnam Mathematical Competition, 842
Koch, John A., reviewer, *The Four-Color Theorem.* By Rudolf Fritsch and Gerda Fritsch, 785
Koditschek, Daniel E. *see Schwind*
Koehn, Uwe *see Hurley*
Kovacs, Istvan, Daniel S. Silver, and Susan G. Williams, Determinants of Commuting-Block Matrices, 950
Kraft, Roger L., Chaos, Cantor Sets, and Hyperbolicity for the Logistic Maps, 400
Krantz, Steven G., You Don't Need a Weatherman to Know Which Way the Wind Blows, 915
Lange, L. J., An Elegant Continued Fraction for π, 456
Larson, Loren C. *see Klosinski*
Laugwitz, Detlef, Riemann's Dissertation and Its Effect on the Evolution of Mathematics, 463
Lax, Peter D., Change of Variables in Multiple Integrals, 497
Leep, David B., and Gerry Myerson, Marriage, Magic, and Solitaire, 419
Lenhard, J. *see Anoulova*
Leysieffer, Frederick, reviewer, *The Basic Practice of Statistics.* By David S. Moore, 181
Littlejohn, L. L. *see Clarke*
Liu, C. Steve *see Chui*
Long, Lyle N., and Howard Weiss, The Velocity Dependence of Aerodynamic Drag: A Primer for Mathematicians, 127
Lu, Jitan, Is The Composite Function Integrable?, 763
Maehara, Hiroshi, Lexell's Theorem Via an Inscribed Angle Theorem, 352
Martin, Greg, The Smallest Solution of $\phi(30n + 1) < \phi(30n)$ Is..., 449
Mathé, Peter, Approximation of Hölder Continuous Functions by Bernstein Polynomials, 568
McCammond, Jonathan P., Integrating Polynomials in Secant and Tangent, 856
McCutcheon, Randall, The Gottschalk-Hedlund Theorem, 670

McKenna, P. J., Large Torsional Oscillations in Suspension Bridges Revisited: Fixing an Old Approximation, 1
Meier, John, and Trisha Thorme, reviewers, *The Social Life of Numbers: A Quechua Ontology of Numbers and Philosophy of Arithmetic.* By Gary Urton, 275
Menezes, Alfred J., Paul C. van Oorschot, and Scott A. Vanstone *Handbook of Applied Cryptography.* Reviewed by Jeffrey Shallit, 85
Metzler, D. *see Anoulova*
Moore, David S., *The Basic Practice of Statistics.* Reviewed by Frederick Leysieffer, 181
Morgan, Frank *see Howards*
Mullin, Albert A., reviewer, *My Brain Is Open: The Mathematical Journeys of Paul Erdös.* By Bruce Schechter, 694
Mullin, Albert A., reviewer, *The Man Who Loved Only Numbers: The Story of Paul Erdös and the Search for Mathematical Truth.* By Paul Hoffman, 694
Multivariable Calculus and the Plus Topology, Daniel J. Velleman, 733
Myerson, Gerry *see Leep*
Nahin, Paul J., *An Imaginary Tale: The Story of* $(-1)^{1/2}$. Reviewed by Ricardo Diaz, 593
Nathanson, Melvyn B., Number Theory and Semigroups of Intermediate Growth, 666
Nowakowski, Richard J. *see Caines*
Nowakowski, Richard, MONTHLY Unsolved Problems, 1969-1999, 959
Osler, Thomas J., The Union of Vieta's and Wallis's Products for Pi, 774
Paradís, Jaume, Pelegrí Viader, and Lluís Bibiloni, A Mathematical Excursion: From the Three-Door Problem to a Cantor-Type Set, 241
Paulhus, Marc M., Beggar My Neighbour, 162
Petsinis, Tom, *The French Mathematician.* Reviewed by Tony Rothman, 369
Pourciau, Bruce, The Education of a Pure Mathematician, 720
Pritchett, Timothy, The Hopping Hoop Revisited, 609
Rauff, James V., reviewer, *African Fractals: Modern Computing and Indigenous Design.* By Ron Eglash, 872
Resnikoff, Howard L., and Raymond O. Wells, Jr., *Wavelet Analysis: The Scalable Structure of Information.* Reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Rice, Adrian, What Makes a Great Mathematics Teacher? The Case of Augustus De Morgan, 534
Richman, Fred, Existence Proofs, 303
Rinne, D. *see Fejzic*
Roesler, Friedrich *see Granville*
Rosenheim, Shawn James, *The Cryptographic Imagination: Secret Writing from Edgar Poe to the Internet.* Reviewed by Jeffrey Shallit, 85
Ross, Kenneth A., Yueh-Gin Gung and Dr. Charles Y. Hu Award for Distinguished Service to Leonard Gillman, 97
Rothman, Tony, reviewer, *The French Mathematician.* By Tom Petsinis, 369
Rotman, Joseph, *Journey Into Mathematics: An Introduction to Proofs.* Reviewed by Joseph H. Silverman, 272
Rudin, Walter, A Stability Theorem, 768
Sardelis, Dimitris A., and Theodoros M. Valahas, Decision Making: A Golden Rule, 215
Sasvári, Zoltán, An Elementary Proof of Binet's Formula for the Gamma Function, 156
Schechter, Bruce, *My Brain Is Open: The Mathematical Journeys of Paul Erdös.* Reviewed by Albert A. Mullin, 694
Schlicker, Steven *see Aboufadel*
Schnabel, Dan, reviewer, *Life's Other Secret.* By Ian Stewart, 478
Schnabel, Dan, reviewer, *The Magical Maze.* By Ian Stewart, 478
Schwind, William J., Jun Ji, and Daniel E. Koditschek, A Physically Motivated Further Note on the Mean Value Theorem for Integrals, 559
Sekino, Junpei, *n*-Ellipses and the Minimum Distance Sum Problem, 193
Selfridge, J. L. *see Blecksmith*
Shallit, Jeffrey, reviewer, *Handbook of Applied Cryptography.* By Alfred J. Menezes, Paul C. van Oorschot, and Scott A. Vanstone, 85
Shallit, Jeffrey, reviewer, *The Cryptographic Imagination: Secret Writing from Edgar Poe to the Internet.* By Shawn James Rosenheim, 85

Shapiro, Helene, The Weyr Characteristic, 919
Shen, Jianhong, On the Generalized "Lanczos' Generalized Derivative", 766
Silver, Daniel S. *see Kovacs*
Silverman, Joseph H., reviewer, *An Accompaniment to Higher Mathematics*. By George R. Exner, 272
Silverman, Joseph H., reviewer, *Journey Into Mathematics: An Introduction to Proofs*. By Joseph Rotman, 272
Silverman, Joseph H., reviewer, *Mathematical Thinking: Problem Solving and Proofs*. By John P. D'Angelo and Douglas B. West, 272
Singer, David A., Curves Whose Curvature Depends on Distance from the Origin, 835
Smirnova, G. S. *see Bashmakova*
Snevily, Hunter S., The Cayley Addition Table of Z_n, 584
Staton, William, A Short Proof of Turán's Theorem, 257
Stein, Sherman K., Cutting a Polyomino into Triangles of Equal Areas, 255
Stewart, Ian, *Life's Other Secret*. Reviewed by Dan Schnabel, 478
Stewart, Ian, *The Magical Maze*. Reviewed by Dan Schnabel, 478
Stolzenberg, Gabriel *see Bridger*
Su, Francis Edward, Rental Harmony: Sperner's Lemma in Fair Division, 930
Sung, Y. *see Anoulova*
Sury, B., On an Example of Jacobson, 675
Swan, Richard G., A Simple Proof of Rankin's Campanological Theorem, 159
Tabachnikov, Serge *see Fuchs*
Terrell, William J., Some Fundamental Control Theory I: Controllability, Observability and Duality, 705
Terrell, William J., Some Fundamental Control Theory II: Feedback Linearization of Single Input Nonlinear Systems, 812
Thomassen, Carsten, On the Nelson Unit Distance Coloring Problem, 850
Thorme, Trisha *see Meier*
Tokieda, Tadashi F., A Mean Value Theorem, 673
Totik, Vilmos, A Tale of Two Integrals, 227
Trench, William F., Conditional Convergence of Infinite Products, 646
Tucker, Thomas W., Reform, Tradition, and Synthesis, 910
Ungar, Abraham A., The Hyperbolic Pythagorean Theorem in the Poincaré Disc Model of Hyperbolic Geometry, 759
Urton, Gary, *The Social Life of Numbers: A Quechua Ontology of Numbers and Philosophy of Arithmetic*. Reviewed by John Meier and Trisha Thorme, 275
Valahas, Theodoros M. *see Sardelis*
van der Poorten, A. J., and P. G. Walsh, A Note on Jacobi Symbols and Continued Fractions, 52
van der Poorten, Alf, *Notes on Fermat's Last Theorem*. Reviewed by Andrew Granville, 177
van Oorschot, Paul C. *see Menezes*
Vanstone, Scott A. *see Menezes*
Viader, Pelegrí *see Paradís*
Vorster, S. J. R. *see Clarke*
Walker, James S., *A Primer on Wavelets for Scientists and Engineers*. Reviewed by Edward Aboufadel, Matthew Boelkins, and Steven Schlicker, 971
Walsh, P. G. *see van der Poorten*
Weber, A. *see Anoulova*
Weeks, Jeffrey R. *see Francis*
Weiss, Howard *see Long*
Wells, Jr., Raymond O. *see Resnikoff*
West, Douglas B. *see D'Angelo*
Williams, Susan G. *see Kovacs*
Willmore, Karen *see Beebee*
Woodburn, Cynthia, reviewer, *An Introductory Course in Commutative Algebra*. By A. W. Chatters and C. R. Hajarnavis, 481
Woodburn, Cynthia, reviewer, *Introduction to Algebra*. By Peter J. Cameron, 481
Woolfe, Sue, *Leaning Towards Infinity*. Reviewed by John Beebee and Karen Willmore, 594
Yasuda, Kan *see Benjamin*
Yetter, David N., The Area of the Medial Parallelogram of a Tetrahedron, 956
Yiu, Paul, Mixtilinear Incircles, 952
Zuehlke, John A., Fermat's Last Theorem for Gaussian Integer Exponents, 49

PROBLEMS PROPOSED

Alkan, Emre 586
András, Szilárd 865
Andreescu, Titu 362
Anglesio, Jean 264, 362, 864, 964
Bellamy, David P. 362
Blatter, Christian 963
Bloom, David M. 264
Borosch, Itshak 685
Bracken, Paul 777
Brown, D. W. 67
Catalano-Johnson, Michael L. 167
Ciaurri, Oscar 586
Costovici, Gh. 686
Cuculière, Roger 166
Dearden, Bruce 963
Deiermann, Paul 166
Deshpande, M. N. 470
Deutsch, Emeric 686
Ferrar, Peter J. 864
Fukuta, Jiro 777
Galvin, Fred 864
Grigis, Alain 685
Hajja, Mowaffaq 963
Hensley, Douglas A. 685
Hillar, Christopher J. 265
Iannucci, Douglas 778
Isbell, John R. 67
Janous, Walther 363
Kalakos, Athanasios 685
Keller, Tim 586
Khan, Mizan R. 470
Kidwell, Mark 778
Kim, Sung Soo 470, 963
Knuth, Donald E. 264, 362
Lazebnik, Felix 362
Lindqvist, Peter 587
Loeb, Daniel 167
Luca, Florian 166
Mabry, Rick 166
Mazur, Marcin 167
McCoart, Richard F. 265
Metzger, Jerry 963
Mihai, Vasile 362
Peetre, Jaak 587
Pelling, M. J. 363, 587
Popescu, Calin 586, 685, 778, 963
Propp, James G. 67
Quet, Leroy 864
Redheffer, Ray 864
Reznick, Bruce 864
Romero Márquez, Juan-Bosco 166
Sapir, Mark 778
Sasvári, Zoltán 68
Shah Ali, Hassan Ali 471
Shapiro, Louis 777
Sidney, Daniel A. 264
Simmons, Gustavus J. 470
Smiley, Leonard 686
Spohn, William G. 67
Suceava, Bogdan 68
Tabachnikov, Serge 265
Tersian, Stepan 685
Theodorescu, Radu 471
van Lamoen, Floor 470
Vanden Eynden, Charles 586
Walker, Peter 963
Waterhouse, William C. 963
Western Maryland College Problems Group 67
Wimp, Jet 166
Joel Zinn 685

PROBLEMS SOLVED

Abel, Ulrich 475
Amdeberhan, Tewodros 782
Ancel, Fredric D. 363
Anchorage Math Solutions Group 692
Andersen, Kenneth F. 175
Arkinstall, John 75
Bansal, Nikhil 866
Benedict, James M. 268
Bowers, Phil 363
Bradley, David M. 170, 173, 686
Bryant, John 363
Callan, David 170, 367, 690
Chapman, Robin J. 73, 74, 171, 689, 869
Chen, Hongwei 76
Con Amore Problems Group 871, 967
Constales, Denis 167
Darling, Donald A. 687
Dawson, Jeremy E. 588
Deiermann, Paul 471

Donini, Daniele 73
Gagola, Stephen M. 590, 782
GCHQ Problems Group 69, 72, 270, 473 (twice), 474, 476, 691, 692, 865, 870, 964, 969
Gilmer, Robert 265
Grossman Nathaniel 871
Hermann, Thomas 368, 592
Hernández, Víctor 589
Herzig, Florian 169
Holzsager, Richard 171, 266
Ionin, Yuri J. 590
Jager, Thomas 70
Janous, Walther 68
Jelen, Frank 688
Kedlaya, Kiran S. 363
Kim, Sung Soo 968
Klamkin, Murray S. 587
Komanda, Nasha 868, 869
Kong, Yong 267
Kopas, Ronald A. 965
Kouba, Omran 176
Lewis, Robin R. 590
Lindsey II, John H. 268, 969
Locke, Stephen C. 168
Lossers, O. P. 589
MacKinnon, Nick 70
Martin, Reiner 71, 266
Mazur, Marcin 365
Nieto, José Heber 365
National Security Agency Problems Group 475, 691
Northshield, Sam 364
Peherstorfer, Franz 472
Pelling, M. J. 970
Popescu, Calin 870
Prasad, M. A. 266
Propp, James G. 865
Robertson, John P. 693
Rushanan, Joseph J. 689
Schaer, J. 784
Schilling, Kenneth 363, 368, 477, 966
Schurle, Arlo W. 363
Staley, Patrick A. 780
Steelman, John Henry 267
Stefanov, Simeon T. 364
Stenger, Allen 271, 591
Stong, Richard 367, 476
Straffin, Philip D. 168
Stromquist, Walter 266
't Woord, A. N. 588
Tauraso, Roberto 174
Thompson, Gerald 268
Thornber, Nora 475
Tissier, Alain 778, 965
Trench, William F. 781
Triesch, Eberhard 688
Tyler, Douglas B. 271
Van Assche, Walter 472
van Lint, J. H. 71
Widmer, Hansruedi 867
Young, Robert L. 779
Zeilberger, Doron 267

SOLUTIONS

Numbers in boldface refer to problems; those in lightface to pages.

10337* 970
10386 587
10434 363
10440 364
10448 471
10486 686
10490 588
10534 265
10547 68
10553 68
10557 70
10558 70
10564 71
10565 72
10566 265
10568 167
10570 72
10572 168
10575 266
10576 168
10578 169
10580 268
10582 170
10585 170
10587 365
10588 365
10589 473
10592 171
10593 473
10596 366
10597 474
10598 268
10599 688
10600 74
10601 688
10603 590
10604 368
10605 173
10606 590
10608 75
10609 690
10610 691
10611 76
10613 174
10614 270
10615 692
10617 693
10618 865
10620 865
10621 175
10622 867
10623 868
10624 271
10625 475
10626 869
10630 271
10631 964
10632 965
10633 778
10635 965
10637 779
10638 591
10644 476
10646 780
10648 476
10650 781
10651 782
10656 782
10657 368
10659 870
10660 477
10662 871
10664 784
10668 966
10670 967
10671 968
10672 969
10675 969
10680 871

*Revival

THANKS

The MONTHLY expresses its appreciation to the following people for their help in refereeing during the past year. We could not function successfully without such people and their hard work.

Patrick Ahern
Ulrich Albrecht
Graham R. Allan
Bruce Anderson
Titu Andreescu
Tom M. Apostol
David Arnold
Richard A. Askey
Edward A. Azoff
Karla Ballman
Michael F. Barnsley
Robert Bartle
Paul Bateman
Lynne Baur
H. S. Bear
A. F. Beardon
William Beckner
Mark B. Beintema
Pierre Bernhard
William D. Blair
Brian Evan Blank
Jeff Bonn
Paul Bourdon
James E. Brennan
David Bressoud
John D. Brillhart
Eric Brussel
Robert B. Burckel
Edward Burger
G. J. Chaitin
A. T. Charles
Tim Chow
Barry Cipra
Doug Clark
Peter Clote
George W. Cobb
Courtney S. Coleman
Bill Coles
Carl C. Cowen
Jerome Dancis
James A. Davis
Philip J. Davis
F. M. Dekking
Frank R. Deutsch
Jill Dietz
Daniel S. Drucker
Lester Dubins
Steven Dunbar
John Duncan
Patrick Eberlein
Ali Enayat
W. Norrie Everitt
Carl FitzGerald
Harley Flanders
Bernard Flury
Paul Froeschl
B. A. Fusaro
Fred Galvin
Theodore W. Gamelin
Ira Gessel

Andrew Gleason
Philip Gloor
Dorian Goldfeld
Solomon W. Golomb
Geoffrey Ross Goodson
Gary Peter Gordon
Daniel Goroff
David Goss
David J. Grabiner
Judith V. Grabiner
Hardy Grant
Jens Gravesen
David A. Gregory
Bob Guralnick
Wayne Haga
Tom Halverson
Bruce Hanson
Jutta Hausen
Ted Hill
Alex Himonas
Yu-Chi Ho
Kevin G. Hockett
Hugo D. Junghenn
Danny Kaplan
H. Jerome Keisler
Jun Kigami
Jeremey Kilpatrick
Israel Kleiner
Ralph D. Kopperman
V. Ya Kreinovich
Joseph P. Kung
Roland H. Lamberson
Esther R. Lamken
Loren C. Larson
Richard Laugesen
Detlef Laugwitz
Peter Lax
Robert Lax
Rob Leduc
Steve Leon
John Lewis
Chi-Kwong Li
Benjamin A. Lotto
David J. Lutzer
Joseph Malkevitch
Colin Mallows
Marvin Marcus
Roy Mathias
Brian J. McCartin
Clint G. McCrory
Douglas B. McLeod
Kenneth C. Millett
David C. Minda
Richard Molnar
Michael F. Moses
Martin Muldoon
Jan Mycielski
Michael Nauenberg
Morris Newman
Lenhard Ng
Sam Northshield
Andrew M. Odlyzko
G. J. Olsder
Frank W. J. Olver
Robert Osserman
Hiram Paley
C. Wayne Patty
Mary Kay Peterson
Mark A. Pinsky
Richard Pollack
Harriet S. Pollatsek
Carl Pomerance
Bjorn Poonen
Bruce Pourciau
James Propp
Jack Quine
Jeffrey Rabin
Matthew P. Richey
Fred Richman
Sinai Robins
Leiba Rodman
Judith Roitman
Donald B. Rubin
Herman Rubin
W. B. G. Ruitenburg
Timothy D. Sauer
Karen Saxe
Ivo Schneider
Allen J. Schwenk
Annie Selden
Jeffrey O. Shallit
Louis W. Shapiro
Heidi Shierholz
Cesar Silva
Joseph H. Silverman
Rodica Simion
David A. Singer
Kay E. Smith
Wasin So
Edward L. Spitznagel
Joe Stampfli
Lynn Arthur Steen
Sherman K. Stein
Robert Steinberg
Ken Stephenson
Juris Steprans
John Stillwell
Kenneth B. Stolarsky
Gilbert Strang
Carl Sundberg
Blake Temple
Lawrence E. Thomas
Pat Thompson
Tadashi Tokieda
Alasdair Urquhart
Charles L. Vanden Eynden
Theodore A. Vessey
Phil Wagreich
Martha Wallace
Joel L. Weiner
James White
Derek Whiteside
Curtis A. Wilson
Warren R. Wogen
Scott A. Wolpert
James A. Yorke
Fuzhen Zhang
Paul Zorn