## THE MATHEMATICS TEACHER

An Official Journal of
The National Council of Teachers of Mathematics
(Incorporated)



## Classified Index Volume LIX 1966

EDITORIAL OFFICE

Irvin H. Brune, Bowling Green State University Bowling Green, Ohio ABELL, THEODORE L., and BROWN, KENNETH E. Trends in Mathematics Offerings and Enrollments. Nov., 652-55.

. Research in the Teaching of High

School Mathematics. Jan., 53-56.

Adler, Irving. The Cambridge Conference Report: Blueprint or Fantasy? Mar., 210-17. . Mental Growth and the Art of Teaching. Dec., 706-15.

Alberty, Elsie J. Mathematics in General

Education. May, 426-31.

ALLEN, MERRY LEWIS. Review of Mathematics: The Study of Axiom Systems, Witter; Blaisdell

Publishing Co., 1964. Feb., 170.
ALLENDOERFER, CARL B., The Method of Equivalence, or How to Cure a Cold. Oct.,

531-35.

WINIFRED. Pseudo-Ternary Arith-ASPREY,

metic. Mar., 240-45.

ATHEN, HERMAN. The Teaching of Vectors in the German Gymnasium, I, II. Apr., 382-93; May, 485-95.

Bassler, Otto C. An Investigation of the Effect of Types of Exercises on Mathematics Learning. Mar., 266-73.

Beane, Donald G. Review of How to Use a Slide Rule, Sackheim; Harper & Row, 1964. Jan., 65.

. Review of Logarithms, Sackheim; Harper

& Row, 1964. Jan., 65-66.

. Review of Problems for the Slide Rule and Calculator, Goffe and Wilcox; Holt, Rinehart & Winston, 1964. Jan., 66.

Beninati, Albert. It's Time to Take a Closer

Look at Calculus. Jan., 29-30.

Berry, William F. Algebraic Proof of an Old Number Trick. Feb., 133.

Bowen, John J. Mathematics and the Teaching

of Science. Oct., 536-42.

Breslich, E. R. Importance of Mathematics in General Education, May, 464-69, First published in The Mathematics Teacher, 20: 303-9 (October 1927).

Briggs, W. E. Factorization in Integral Do-

mains. May, 432-36.

Broida, Michael. Review of Essentials of Algebra and Trigonometry, Young; Addison-Wesley, 1964. Mar., 288-89.

Brother U. Alfred. A Mathematician's Progress. Dec., 722-27.

Brown, David H. The Problem of the Three Prisoners. Feb., 131-32.

Brown, Kenneth E., and Abell, Theodore L. Trends in Mathematics Offerings and Enrollments. Nov., 652-55.

. Research in the Teaching of High School Mathematics. Jan., 53-56.

Brown, Richard G. The Rule of 72. Nov.,

Brown, Stephen I. Implications of an Operation Uniquely Defined with Respect to an Equivalence Relation: The "Freeing" of Vectors. Feb., 115-23.

. Multiplication, Addition, and Duality. Oct., 543-50, 594.

BRUNE, IRVIN H. A Time to Take Stock. Dec., 783-85.

. Welcome to a New Department. Jan.,

RUSSELL J., and WIGGIN, NEAL A. CALL, Reading and Mathematics. Feb., 149-57.

CALLOW, WALLACE G. Why Not a Survey Course in Mathematics? Nov., 662-64.

COLUMBIA TEAM IN AFGHANISTAN; TRANBERG, CARL C., Jr.; and KAYHAN, HUSSEIN. Mathematics Teaching in Afghanistan, 1964. Feb., 143-46.

Crosswhite, F. Joe. Editor, Classics in Mathematics Education. Jan., 58-61; Feb., 158-66; Mar., 261-65; Apr., 358-63; May, 464-69; Oct., 561-63; Nov., 656-61; Dec., 744-48.

Davis, Violet. Review of The Treasury of Mathematics, Midonick (ed.); Philosophical

Library, 1965. Feb., 169-70.

Delessert, André. What Does the Secondary School Teacher of Mathematics Expect from the University? Mar., 279-85.

DORMAN, JANET; TOLLEFSON, JEFFREY L.; and STEIN, F. MAX. Fields and Near-Fields of Ordered Pairs of Reals. Apr., 335-41.

Dorner, George C. Review of Basic Technical Mathematics with Calculus, Washington; Addison-Wesley, 1964. Mar., 290-91.

Dyer-Bennet, John. Review of Plane Trigonometry, 2nd ed., Spitzbart and Bardell; Addison-Wesley, 1964. Mar., 289.

EHRENBERG, NEAL, and FREMONT, HERBERT. The Hidden Potential of Low Achievers.

Oct., 551-57.

Ellis, Glenn. Rx for Inertia. Feb., 128-30.

Engel, A. Mathematical Research and Instruction in Probability Theory. Dec., 771-82.

EVES, HOWARD. The Bernoulli Family. Mar., 276 - 78.

. Editor, Historically Speaking, ... Jan., 36-41; Feb., 138-42; Mar., 276-78; Apr., 372-81; May, 476-84; Oct., 574-76; Nov., 666-70; Dec., 755-70.

Fehr, Howard F. Editor, International Mathematical Education. Jan., 42-52; Feb., 143-46; Mar., 279-85; Apr., 382-93; May, 485-95; Oct., 577-83; Nov., 671-74; Dec., 771-82.

The Mathematics Program in Japanese

Secondary Schools. Oct., 577-83.

. A Unified Mathematics Program for Grades Seven Through Twelve. May, 463.

Fejfar, James L. A Note Concerning Teaching Machines and Theories of Learning, Mar., 258-60.

Felder, Virginia. Review of Plane Trigonometry with Tables, Heineman; McGraw-Hill, 1964. Mar., 289-90.

FREMONT, HERBERT, and EHRENBERG, NEAL. The Hidden Potential of Low Achievers. Oct., 551-57.

FUKUDA, DONALD; MOOKINI, EDWIN; and SIU,

JAMES K. M. A Straight Line Model for Multiplication. Apr., 342-47.

GARFUNKEL, J. Using Geometry to Prove Algebraic Inequalities. Dec., 730-34.

GARFUNKEL, J., and LEEDS, B. The Circle of

Unit Diameter. Feb., 124-27.

GILLINGS, R. J. The Remarkable Mental Arithmetic of the Egyptian Scribes, I, II. Apr.,

372-81; May, 476-84. GINTHER, JOHN L. Review of Secondary School Mathematics, Vols. I and II, Potvin, Bedford, and Pearson; McGraw-Hill, 1963. May, 496. GINTHER, JOHN L., and HENDERSON, KENNETH

B. Strategies for Teaching Concepts by Using

Definitions. May, 455-57.

GLAVAS, C. B. High School Mathematics Reform in Greece. Nov., 671-74.

GUTTERSEN, GRANVILLE. A Computer for Every Classroom! Apr., 356-57.

HADDOCK, GLEN, and HIGHT, DONALD W. Geometric Techniques for Graphing, Jan.,

HAMMAR, ARTHUR W. Review of Basic Concepts of Geometry, Prenowitz and Jordan; Blaisdell

Publishing Co., 1965. May, 498-99.

HARTMANN, GEORGE. Gestalt Psychology and Mathematical Insight. Nov., 656-61. First published in The Mathematics Teacher, 30: 265-70 (October 1937).

HAUSNER, MELVIN. On an Easy Construction of a Computing Machine. Apr., 351-56.

HEIMER, RALPH T. Designs for Future Explorations in Programed Instruction. Feb., 110-14. HEINEMAN, E. RICHARD. Steers, Pigs, and Chickens: A Study in Semantics. Oct., 558-60.

HELLMAN, M. H. On the Evaluation of

 $\int \sec x \, dx$  and  $\int \csc x \, dx$ . Mar., 257.

HENDERSON, KENNETH B., and GINTHER, JOHN L. Strategies for Teaching Concepts by Using Definitions. May, 455-57.

HIGHT, DONALD W., and HADDOCK, GLEN. Geometric Techniques for Graphing. Jan.,

HIRSCH, A. ADLER. An Optical Method for Demonstrating the Point of Inflection of

Curves. Mar., 250. HOAG, JESSIE MAY. Review of Factors and Primes, Seltzer; Macmillan Co., 1963. Jan.,

HOLYOKE, T. C. Review of Groups, Papy (translated by Mary Warner); St. Martin's

Press, 1964. May, 498.

Jamison, King W. Grammathically Speaking.

Nov., 640-45.

Johnson, Donovan A. A Pattern for Research in the Mathematics Classroom. May, 418-25.

Johnson, Paul B. Are Circles Similar? Jan.,

JUST, ERWIN, and SCHAUMBERGER, NORMAN. Two Theorems Concerning Partial Fractions. Jan., 34-35.

Kalin, Robert. Some Guidelines for Selecting a Programed Text in Mathematics. Jan.,

14 - 23.

Kaplan, Jerome D. Classroom Management. Dec., 749-52.

Kattsoff, Louis O. Review of Philosophy of Mathematics, Benacerraf and Putnam (eds.); Prentice-Hall, 1964. Feb., 167; Mar., 286.

KAYHAN, HUSSEIN; TRANBERG, CARL C., JR.; and COLUMBIA TEAM IN AFGHANISTAN. Mathematics Teaching in Afghanistan, 1964. Feb., 143–46.

KEEDY, M. L. What Is a Trapezoid? Nov., 646. KENNEDY, EVELYN. Omar Khayyam. Feb., 140-42.

Keyser, Cassius. The Human Worth of Rigorous Thinking. Jan., 58-61. First published in THE MATHEMATICS TEACHER, 15: 1-5. (January 1922).

KLINE, MORRIS. A Proposal for the High School Mathematics Curriculum. Apr., 322-30.

Langer, Susanne K. Algebra and the Development of Reason. Feb., 158-66. First published in The Mathematics Teacher, 24: 285-97 (May 1931).

LANTZ, WILLIAM B., Review of Basic Slide-Rule Operation, Vol. II, Mittelstadt; McGraw-Hill,

1964. May, 497.

LASSWELL, EDMUND C. An Open Letter to Authors and Publishers. Dec., 739-40.

LAWLER, ROBERT F. A Nontrivial Automorphism of the Field of Real Numbers. Dec., 716-21.

LEACOCK, STEPHEN. Human Interest Put into Mathematics. Oct., 561-63. First published in The Mathematics Teacher, 22: 302-4 (May 1929).

LEAKE, LOWELL, JR. Axiom or Theorem? Feb.,

107 - 9.

LEEDS, B., and GARFUNKEL, J. The Circle of Unit Diameter. Feb., 124-27.

LEETCH, J. F. Antifreeze and Exponential Growth. Dec., 728-29.

LICHTENBERG, D. R. Review of Modern Introductory Analysis, Dolciani and others; Houghton Mifflin, 1964. May, 499.

LLOYD, DANIEL B. Further Evidences of Primeval Mathematics. Nov., 668-70.

Long, Clifford A. Review of Episodes from the Early History of Mathematics, Aaboe; Random House, 1964. Feb., 168; Mar., 287-88.

Low, Leone. Even More on Pascal's Triangle and Powers of 11. May, 461-63.

LOWRY, WILLIAM C. Review of Philosophy of Mathematics, Barker; Prentice-Hall, 1964. Feb., 167-68; Mar., 286-87.

Macdonald, I. D. Abstract Algebra from Axio-

matic Geometry. Feb., 98-106. McKillip, William D. The Effects of High School Calculus on Students' First-Semester Calculus Grades at the University of Virginia. May, 470-72.

Manheim, Jerome H. The Genesis of Point Set Topology: From Newton to Hausdorff.

Jan., 36-41.

MAY, KENNETH O. Programming and Auto-

mation. May, 444-54.

MEDER, ALBERT E., JR. Sets, Sinners, and Salvation. Apr., 358-63. First published in THE MATHEMATICS TEACHER, 52: 434-38 (October 1959).

Meserve, Bruce E. Mathematics Teachers, On Guard! Oct., 522-30.

The Teaching of Remedial Mathe-

matics. May, 437-43.

MILLER, LESLIE. Review of Foundations of Geometry, Wylie; McGraw-Hill, 1964. Mar., 291.

MILLS, C. N. Radii of the Apollonius Contact

Circles. Oct., 574-76.

MOOKINI, EDWIN; FUKADA, DONALD; and SIU, James K. M. A Straight Line Model for Multiplication. Apr., 342-47.

MUELLER, FRANCIS J. The Public Image of "New Mathematics." Nov., 618-23.

Myers, G. W. Reaction vs. Radicalism in the Teaching of Mathematics. Mar., 261-65. First published in MATHEMATICS THE

NANNINI, Amos. Geometric Solution of a Quad-

TEACHER, 15: 137-46 (March 1922).

ratic Equation. Nov., 647-49.

NICHOLS, EUGENE D. Editor, Experimental Programs. Jan., 53-57; Feb., 149-57; Mar., 266-73; Apr., 364-69; May, 470-72; Oct., 564-71; Nov., 662-64; Dec., 749-52.

Oda, Linda. Developing Spatial Perception via the Experimental Technique. Nov., 631-33.

Ogg, F. C. Review of *Projective Geometry*, Coxeter; Blaisdell Publishing Co., 1964. Mar., 291.

PEAK, PHILIP, Editor, Have You Read? Jan., 62-63; Feb., 147-48; Mar., 274-75; Apr., 370-71; May, 473-75; Oct., 572-73; Nov., 665; Dec., 753-54.

PETERSEN, ARNOLD. Review of Delights of the Slide Rule, Clason; Thomas Y. Crowell Co.,

1964. Jan., 64-65.

. Review of Simplifying the Slide Rule, Marks; Bantam Books, 1964. Jan., 65.

PIKAART, LEONARD. Review of The Mathematical Principles of Natural Philosophy, Newton; Philosophical Library, 1964. Feb., 168; Mar., 287.

PITZER, GEORGE L. Review of The Universal Encyclopedia of Mathematics, Newman; Simon

& Schuster, 1964. Feb., 170.

PLOTKIN, B. Using Geometry to Prove Algebraic Inequalities. Dec., 730-34.

PLUNKETT, BETTY. Aba Daba Daba. Mar., 236 - 39.

PRUITT, ROBERT. A General Divisibility Test. Jan., 31-33.

READ, CECIL B. A Book Printed in the Year VII. Feb., 138-40.

Reckzeh, John K. Review of Theory of Relationships, Silverman and Silverman; Philosophical Library, 1963. Feb., 171.

RICHER, EDITH A. Review of The Mathematics of Great Amateurs, Coolidge; Dover Publications, 1963. Feb., 169.

RYOTI, DON. Congruency of Triangles by AAS. Mar., 246-47.

Saidan, A. S. A Recreational Problem in a Medieval Arithmetic. Nov., 666-67.

Scandura, Joseph M. Concrete Examples of Commutative Nonassociative Systems. Dec., 735-36.

SCHAFF, MARY ELLEN. Discovery-Type Investigation for Coordinate Geometry Students. May, 458-60.

SCHAUMBERGER, NORMAN, and JUST, ERWIN. Two Theorems Concerning Partial Fractions.

Jan., 34-35.

SCHULZ, CHARLES E. Review of The Integers. Sprecklemeyer; D. C. Heath, 1964. May, 497. . Review of The Real Numbers, Spreckle-

meyer; D. C. Heath, 1964. May, 497.

SEYBOLD, MARY ANICE. Review of Matrix Techniques, Trigonometry, and Analytic Geometry, Amir-Moez; Edwards Brothers, 1964. Mar.,

. Review of The Non-Algebraic Elementary Functions: A Rigorous Approach, Yandl; Prentice-Hall, 1964. Mar., 290.

Shoemaker, Richard. Review of Mathematical Bafflers, Dunn (ed.); McGraw-Hill, 1964. Jan., 64.

. Short Sequel to "Problem Solving in Mathematics." Nov., 650-51.

SHOGREN, MERLE, and YATES, RICHARD. A Sieve for Primes p>5. Jan., 24-28.

SISTER ANN XAVIER. A Teacher-Made Slide Program. Mar., 248-49.

SISTER M. THOMAS A KEMPIS. Mathematics and the Nobel Prize. Nov., 667-68.

SISTER MARY St. JOAN OF ARC, B.V.M. Review of Elementary Geometry from an Advanced Standpoint, Moise; Addison-Wesley, 1963. Mar., 291.

SISTER MAURICE MARIE BYRNE, O.S.U. A Geometric Approach to the Conic Sections. Apr.,

348-50.

SISTER VINCENT TEHAN, S.C.N. The Use of the Taylor Series in Change of Bases. Feb., 134 - 37.

SIU, JAMES K. M.; FUKUDA, DONALD; and Mookini, Edwin. A Straight Line Model for

Multiplication. Apr., 342-47.

SLAUGHT, H. E. Romance of Mathematics. Dec., 744-48. First published in The Mathe-MATICS TEACHER, 20: 303-9 (October 1927).

Spielberg, Stephen E. Review of The World of Probability: Statistics in Science, Diamond; Basic Books, 1964. Jan., 66.

STEIN, F. MAX; DORMAN, JANET; and TOLLEFson, Jeffrey L. Fields and Near-Fields of Ordered Pairs of Reals. Apr., 335-41.

STEINEN, RAMON F. More About 1965 and 1966.

Dec., 737–38.

Syer, Henry W. Review of Mathematical Discourses: The Heart of Mathematical Science, Newsom; Prentice-Hall, 1964. May, 496-97.

SZABO, STEVEN. An Approach to Euclidean Geometry Through Vectors. Mar., 218-35.

TAMMADGE, ALAN. Networks. Nov., 624-30. THWAITES, BYRAN. Mathematical Reforms in English Secondary Schools. Jan., 42-52.

TINNAPPEL, HAROLD. Editor, Reviews and Evaluations. Jan., 64-66; Feb., 167-71; Mar.,

286-91; May, 496-99.

Tollefson, Jeffrey L.; Dorman, Janet; and STEIN, F. MAX. Fields and Near-Fields of Ordered Pairs of Reals. Apr., 335-41.

TOWNSEND, R. N. Review of Functions of a Complex Variable and Some of Their Applications, Fuchs and Shabat (translated by J. Perry and J. W. Reed); Addison-Wesley, 1964. May, 498.

TRANBERG, CARL C., JR.; KAYHAN, HUSSEIN; and COLUMBIA TEAM IN AFGHANISTAN. Mathematics Teaching in Afghanistan, 1964.

Feb., 143-46.

TRIMBLE, HAROLD C. Problems as Means. Jan., 6-8.

TURNER, DEAN V. Review of Ways of Thought of Great Mathematicians, Meschkowski (Dyer-Bennet, trans.) Holden-Day, 1964. Feb., 169.

Wampler, Joe F. Prediction of Achievement in College Mathematics. Apr., 364-69.

WERNICK, WILLIAM. Variations on a Theme y = 2x - 3. Mar., 251–56.

WHITE, WAYNE E. Review of 150 Puzzles in Crypt-Arithmetic, Brooke; Dover Publications, 1963. Jan., 64.

WHITMAN, NANCY C., and ODA, LINDA. Devel-

oping Spatial Perception via the Experimental Technique. Nov., 631-33.

. Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii. Oct., 564-71.

WIGGIN, NEAL A., and CALL, RUSSELL J. Reading and Mathematics. Feb., 149-57.

WILLERDING, MARGARET F. Divisibility and Factorization of Gaussian Integers. Nov., 634-37.

Wilson, Robert L. Review of Random Essays on Mathematics, Education, and Computers, Kemeny; Prentice-Hall, 1964. Feb., 170.

Wursthorn, Peter A. The Position of Thomas Carlyle in the History of Mathematics. Dec., 755-70.

YATES, RICHARD, and SHOGREN, MERLE. A Sieve for Prime p>5. Jan., 24-28.

ZANT, JAMES H. A Proposal for the High School Mathematics Curriculum-What Does It Mean? Apr., 331-34.

## Title index

AAAS Cooperative Committee Effort Spans Quarter Century. Dec., 741-43.

Aba Daba Daba. BETTY PLUNKETT. Mar., 236-39.

Abstract Algebra from Axiomatic Geometry. I. D. MACDONALD. Feb., 98-106.

Algebra and the Development of Reason. Susanne K. Langer. Feb., 158-66. First published in The Mathematics Teacher, 24: 285-97 (May 1931).

Algebraic Proof of an Old Number Trick.

WILLIAM F. BERRY. Feb., 133.

An Approach to Euclidean Geometry Through Vectors. Steven Szabo. Mar., 218-35.

Antifreeze and Exponential Growth, J. F. LEETCH. Dec., 728-29.

Are Circles Similar? PAUL B. JOHNSON. Jan.,

Axiom or Theorem? Lowell Leake, Jr. Feb., 107 - 9.

The Bernoulli Family. Howard Eves. Mar., 276-78.

A Book Printed in the Year VII. CECIL B. READ. Feb., 138-40.

The Cambridge Conference Report: Blueprint or Fantasy? IRVING ADLER. Mar., 210-17.

The Circle of Unit Diameter. J. GARFUNKEL and

B. LEEDS. Feb., 124-27.

Classics in Mathematics Education. F. Joe Crosswhite, Editor. Jan., 58-61; Feb., 158-66; Mar., 261-65; Apr. 358-63; May, 464-69; Oct., 561-63; Nov., 656-61; Dec., 744-48.

Classroom Management, Jerome D. Kaplan.

Dec., 749-52.

Committees, Projects, and Representatives (1965-66). Jan., 76-80.

A Computer for Every Classroom! Granville GUTTERSEN. Apr., 356-57.

Concrete Examples of Commutative Nonassociative Systems. Joseph M. Scandura. Dec., 735-36.

Congruency of Triangles by AAS. Don Ryoti. Mar., 246-47.

Designs for Future Explorations in Programed Instruction. RALPH T. HEIMER. Feb., 110-14.

Developing Spatial Perception via the Experimental Technique, NANCY C. WHITMAN and LINDA ODA. Nov., 631-33.

Discovery-Type Investigation for Coordinate Geometry Students. MARY ELLEN SCHAFF. May, 458-60.

Divisibility and Factorization of Gaussian Integers. MARGARET F. WILLERDING. Nov., 634-37.

The Effects of High School Calculus on Students' First-Semester Calculus Grades at the University of Virginia. WILLIAM D. Mc-KILLIP. May, 470-72

Even More on Pascal's Triangle and Powers of

11. LEONE LOW. May, 461-63.

Experimental Programs. Eugene D. Nichols, Editor. Jan., 53-57; Feb., 149-57; Mar., 266-73; Apr., 364-69; May, 470-72; Oct., 564-71; Nov., 662-64; Dec., 749-52.

Factorization in Integral Domains, W. E.

Briggs. May, 432-36.

Fields and Near-Fields of Ordered Pairs of Reals. Janet Dorman, Jeffrey L. Tollefson, and F. Max Stein. Apr., 335-41.

Further Evidences of Primeval Mathematics. Daniel B. Lloyd. Nov., 668-70.

A General Divisibility Test. Robert Pruitt. Jan., 31-33.

The Genesis of Point Set Topology: From Newton to Hausdorff, JEROME H. MANHEIM. Jan., 36-41.

A Geometric Approach to the Conic Sections.

SISTER MAURICE MARIE BYRNE, O.S.U. Apr., 348-50.

Geometric Solution of a Quadratic Equation.

Amos Nannini. Nov., 647-49.

Geometric Techniques for Graphing. GLEN HADDOCK and DONALD W. HIGHT. Jan., 2-5.

Gestalt Psychology and Mathematical Insight. George W. Hartmann. Nov., 656-61. First published in The Mathematics Teacher, 30: 265-70 (October 1937).

Grammarmathically Speaking, King W. Jami-

son. Nov., 640-45.

Have You Read? Philip Peak, Editor. Jan., 62-63; Feb., 147-48; Mar., 274-75; Apr., 370-71; May, 473-75; Oct., 572-73; Nov., 665; Dec., 753-54.

The Hidden Potential of Low Achievers. HERBERT FREMONT and NEAL EHRENBERG,

Oct., 551-57.

High School Mathematics Reform in Greece.

C. B. Glavas. Nov., 671-74.

Historically Speaking—. Howard Eves, Editor. Jan., 36-41; Feb., 138-42; Mar., 276-78; Apr., 372-81; May, 476-84; Oct., 574-76; Nov., 666-70; Dec., 755-70.

Human Interest Put into Mathematics. STEPHEN LEACOCK. Oct., 561-63. First published in The Mathematics Teacher, 22:

302-4 (May 1929).

The Human Worth of Rigorous Thinking. Cassius Keyser. Jan., 58-61. First published in The Mathematics Teacher, 15:

1-5 (January 1922).

Implications of an Operation Uniquely Defined with Respect to an Equivalence Relation: The "Freeing" of Vectors. Stephen I. Brown. Feb., 115-23.

Importance of Mathematics in General Education. E. R. Breslich. May, 464-69. First published in The Mathematics Teacher,

20: 303-9 (October 1927).

International Mathematical Education. Howard F. Fehr, Editor. Jan., 42-52; Feb., 143-46; Mar., 279-85; Apr., 382-93; May, 485-95; Oct., 577-83; Nov., 671-74; Dec., 771-82.

An Investigation of the Effect of Types of Exercises on Mathematics Learning. Otto C. Bassler, Mar., 266-73.

It's Time to Take a Closer Look at Calculus. ALBERT BENINATI. Jan., 29-30.

Mathematical Reforms in English Secondary Schools. Byran Thwaites. Jan., 42-52.

Mathematical Research and Instruction in Probability Theory. A. Engel. Dec., 771-82.

A Mathematician's Progress. Brother U. Alfred. Dec., 722-27.

Mathematics and the Nobel Prize. SISTER M. THOMAS À KEMPIS. Nov., 667-68.

Mathematics and the Teaching of Science. John J. Bowen. Oct., 536-42.

Mathematics in General Education. Elsie J. Alberty. May, 426-31.

The Mathematics Program in Japanese Secondary Schools. Howard F. Fehr. Oct., 577-83.

Mathematics Teachers, On Guard! Bruce E.

MESERVE. Oct., 522-30.

Mathematics Teaching in Afghanistan, 1984. Carl C. Tranberg, Jr., Hussein Kayhan, and Columbia Team in Afghanistan. Feb., 143-46.

Mental Growth and the Art of Teaching.

IRVING ADLER. Dec., 706-15.

The Method of Equivalence, or How to Cure a Cold. Carl B. Allendoerfer. Oct., 531-35, Memberships and Subscriptions. Oct., 592. Minutes of the Annual Business Meeting. Oct.,

584-86.

More About 1965 and 1966, RAMON F. STEINEN, Dec., 737-38.

Multiplication, Addition, and Duality. Stephen I. Brown. Oct., 543-50, 594.

NCTM Affiliated Group Officers and Editors, Feb., 172–83.

NCTM Elections. May, 506.

NCTM 1966-67 Budget. Oct., 587.

NCTM Representatives. May, 500-506. Networks. Alan Tammadge. Nov., 624-30.

A Nontrivial Automorphism of the Field of Real Numbers. Robert F. Lawler. Dec., 716-21.

A Note Concerning Teaching Machines and Theories of Learning. James F. Fejfar, Mar., 258-60.

Officers, Directors, Committees, Projects, and Representatives (1966-67). Oct., 588-92.

Omar Khayyam. Evelyn Kennedy. Feb., 140-42.

On an Easy Construction of a Computing Machine, Melvin Hausner, Apr., 351-56.

On the Evaluation of  $\int \sec x \, dx$  and  $\int \csc x \, dx$ . M. H. Hellman. Mar., 257.

An Open Letter to Authors and Publishers. EDMUND C. LASSWELL. Dec., 739-40.

An Optical Method for Demonstrating the Point of Inflection on Curves. A. ADLER HIRSCH. Mar., 250.

A Pattern for Research in the Mathematics Classroom, Donovan A. Johnson, May,

418-25.

Points and Viewpoints. Jan., 57; Dec., 783-85. The Position of Thomas Carlyle in the History of Mathematics. Peter A. Wursthorn. Dec., 755-70.

Prediction of Achievement in College Mathematics. Joe F. Wampler. Apr., 364-69.

The Problem of the Three Prisoners. David H.

Brown. Feb., 131-32.

Problems as Means. HAROLD C. TRIMBLE. Jan., 6-8.

Programming and Automation. Kenneth O. May. May, 444-54.

Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii. NANCY C. WHITMAN. Oct., 564-71.

A Proposal for the High School Mathematics Curriculum, Morris Kline, Apr., 322-30.

A Proposal for the High School Mathematics Curriculum—What Does It Mean? James H. Zant. Apr., 331-34.

Pseudo-Ternary Arithmetic. WINIFRED ASPREY. Mar., 240-45. The Public Image of "New Mathematics." Francis J. Mueller. Nov., 618-23.

Radii of the Apollonius Contact Circles.

C. N. MILLS. Oct., 574-76.

Reaction vs. Radicalism in the Teaching of Mathematics. G. W. Myers. Mar., 261-65. First published in The Mathematics Teach-ER, 15: 137-46 (March 1922).

Reading and Mathematics. Russell J. Call and NEAL A. WIGGIN. Feb., 149-57.

A Recreational Problem in a Medieval Arithmetic. A. S. SAIDAN. Nov., 666-67.

The Remarkable Mental Arithmetic of the Egyptian Scribes, I, II. R. J. GILLINGS. Apr., 372-81; May., 476-84. Report of the Nominating Committee. Jan.,

67-75.

Research in the Teaching of High School Mathematics. Kenneth E. Brown and Theodore L. Abell. Jan., 53-56.

Reviews and Evaluations. HAROLD TINNAPPEL, Editor. Jan., 64-66; Feb., 167-71; Mar., 286-

91; May, 496-99.

Romance of Mathematics. H. E. Slaught. Dec., 744-48. First published in The Mathematics Teacher, 20: 303-9 (October

The Rule of 72. RICHARD G. BROWN, Nov., 638-

Rx for Inertia. GLENN ELLIS. Feb., 128-30.

Sets, Sinners, and Salvation. Albert E. Meder, Jr., Apr., 358-63. First published in The Mathematics Teacher, 52: 434-38 (October

Short Sequel to "Problem Solving in Mathematics." RICHARD SHOEMAKER. Nov., 650-51.

A Sieve for Primes p>5. Merle Shogren and

RICHARD YATES. Jan., 24-28.

Some Guidelines for Selecting a Programed Text in Mathematics. ROBERT KALIN. Jan., 14-23. Steers, Pigs, and Chickens: A Study in Seman-

tics. E. RICHARD HEINEMAN. Oct., 558-60. A Straight Line Model for Multiplication.

Donald Fukuda, Edwin Mookini, and James K. M. Siu. Apr., 342-47.

Strategies for Teaching Concepts by Using Definitions. John L. GINTHER and KENNETH B. Henderson. May, 455-57.

A Teacher-Made Slide Program. SISTER ANN XAVIER. Mar., 248-49.

The Teaching of Remedial Mathematics. BRUCE E. MESERVE. May, 437-43.

The Teaching of Vectors in the German Gym-

nasium, I, II. HERMAN ATHEN. Apr., 382-93; May, 485-95.

A Time to Take Stock. IRVIN H. BRUNE. Dec., 783-85.

Trends in Mathematics Offerings and Enrollments. Kenneth E. Brown and Theodore L. ABELL. Nov., 652–55.

Two Theorems Concerning Partial Fractions. ERWIN JUST and NORMAN SCHAUMBERGER.

Jan., 34-35.

A Unified Mathematics Program for Grades Seven Through Twelve. Howard F. Fehr. May, 463.

The Use of the Taylor Series in Change of Bases. Sister Vincent Tehan, S.C.N. Feb.,

Using Geometry to Prove Algebraic Inequalities. J. GARFUNKEL and B. PLOTKIN. Dec., 730-34.

Variations on a Theme y=2x-3, WILLIAM WERNICK. Mar., 251-56.

What's New? Apr., 394; May, 443, 475; Oct., 535, 557; Nov., 670, 674; Dec., 743, 752.

Welcome to a New Department, IRVIN H. BRUNE. Jan., 57.

What Does the Secondary-School Teacher of Mathematics Expect from the University? André Delessert. Mar., 279-85. What Is a Trapezoid? M. L. Keedy. Nov., 646.

Why Not a Survey Course in Mathematics? WALLACE G. CALLOW. Nov., 662-64.

Your Professional Dates. Jan., 81-82; Feb., 184-85; Mar., 292-93; Apr., 395-96; May, 507; Oct., 593-94; Nov., 679; Dec., 786.

## Subject index

ABILITY GROUPING

The Hidden Potential of Low Achievers, 551-57.

It's Time to Take a Closer Look at Calculus, 29-30.

Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii, 564-71.

Prediction of Achievement in College Mathematics, 364–69.

Pseudo-Ternary Arithmetic, 240-45.

ALGEBRA

Curriculum

Mathematics and the Teaching of Science,

A Proposal for the High School Mathematics Curriculum, 322-30.

A Proposal for the High School Mathematics Curriculum-What Does It Mean? 331-34.

Miscellaneous

Grammarmathically Speaking, 640-45.

Human Interest Put into Mathematics, 561-63.

Problems as Means, 6-8. The Rule of 72, 638-39.

Teaching Methods

Classroom Management, 749-52.

The Hidden Potential of Low Achievers, 551-57.

The Method of Equivalence, or How to Cure a Cold, 531-35.

Using Geometry to Prove Algebraic Inequalities, 730-34.

Topics in

Abstract Algebra from Axiomatic Geometry, 98-106.

Algebra and the Development of Reason, 158-66.

Algebraic Proof of an Old Number Trick, 133.

Approach to Euclidean Geometry Through Vectors, 218-35.

Axiom or Theorem? 107-9.

Concrete Examples of Commutative Nonassociative Systems, 735–36.

Divisibility and Factorization of Gaussian Integers, 634-37.

Even More on Pascal's Triangle and Powers of 11, 461-63.

Factorization in Integral Domains, 432-36. Fields and Near-Fields of Ordered Pairs of Reals, 335-41.

A General Divisibility Test, 31-33.

Geometric Solution of a Quadratic Equation, 647-49.

Implications of an Operation Uniquely Defined with Respect to an Equivalence Relation: The "Freeing" of Vectors,

Multiplication, Addition, and Duality, 543-50, 594.

Networks, 624-30.

A Nontrivial Automorphism of the Field of Real Numbers, 716-21.

Steers, Pigs, and Chickens, 558-60.

A Straight Line Model for Multiplication, 342 - 47.

The Teaching of Vectors in the German Gymnasium, I, II, 382-93; 485-95.

Two Theorems Concerning Partial Fractions, 34-35.

Variations on a Theme y = 2x - 3, 251-56. APPLICATIONS

Business and Consumer

Antifreeze and Exponential Growth, 727-29. The Rule of 72, 638–39.

Science and Engineering

The Hidden Potential of Low Achievers,

Mathematics and the Teaching of Science, 536-42.

ARITHMETIC

Miscellaneous

The Remarkable Mental Arithmetic of the Egyptian Scribes, I, II, 372-81; 476-84.

Teaching Methods

A Straight Line Model for Multiplication, 342 - 47.

Topics in

Pseudo-Ternary Arithmetic, 240-45. A Recreational Problem in a Medieval Arithmetic, 666-67.

CALCULATORS AND COMPUTERS

A Computer for Every Classroom! 356-57. On an Easy Construction of A Computing Machine, 351-56.

CALCULUS

Curriculum

It's Time to Take a Closer Look at Cal-

culus, 29-30.

Miscellaneous

The Effect of High School Calculus on Students' First-Semester Calculus Grades at the University of Virginia, 470-72.

Topics in

On the Evaluation of  $\int \sec x \, dx$  and  $\int \csc x \, dx$ , 257.

The Use of the Taylor Series in Change of Bases, 134-37. (See also Letter to the Editor, 623, 633).

Using Geometry to Prove Algebraic Inequalities, 730-34.

CALENDARS

A Book Printed in the Year VII, 138-40.

Clubs, Mathematics

Axiom or Theorem? 107-9.

CURRICULUM

College

Prediction of Achievement in College Mathematics, 364-69.

What Does the Secondary-School Teacher of Mathematics Expect from the University? 279-85.

High School

High School Mathematics Reform in Greece, 671-74.

Mathematical Research and Instruction in Probability Theory, 771-82.

The Mathematics Program in Japanese Secondary Schools, 577-83.

Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii, 564-71.

A Proposal for the High School Mathematics Curriculum, 322-30.

A Proposal for the High School Mathe-Curriculum-What Does It matics Mean? 331-34.

Research in the Teaching of High School Mathematics, 53-56.

Sets, Sinners, and Salvation, 358-63. The Teaching of Vectors in the German

Gymnasium, I, II, 382-93; 485-95.

Why Not a Survey Course in Mathematics? 662 - 64.

Junior High School

Mathematical Research and Instruction in Probability Theory, 771-82.

The Mathematics Program in Japanese Secondary Schools, 577-83.

Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii, 564-71.

Miscellaneous

The Cambridge Conference Report: Blueprint or Fantasy? 210-17.

Grammarmathically Speaking, 640-45.

Mathematical Reforms in English Secondary Schools, 42-52. (See also Letter to the Editor, 633, 637.)

Mathematics Teachers, On Guard! 522-30. Mathematics Teaching in Afghanistan, 143 - 46.

Mental Growth and the Art of Teaching, 706-15.

The Public Image of "New Mathematics," 618-23.

The Teaching of Remedial Mathematics, 437-43.

Trends in Mathematics Offerings and Enrollments, 652-55.

DEVICES-See Visual aids.

EVALUATIONS

 $R_x$  for Inertia, 128–30.

GEOMETRY

Curriculum

A Proposal for the High School Mathematics Curriculum, 322-30.

A Proposal for the High School Mathematics Curriculum—What Does It Mean? 331-34.

Miscellaneous

Factorization in Integral Domains, 432-36.

Teaching Methods

Discovery-Type Investigation for Coordinate Geometry Students, 458-60.

An Investigation of the Effect of Types of Exercises on Mathematics Learning, 266-73.

Using Geometry to Prove Algebraic Inequalities, 730-34.

Topics in

Aba Daba Daba, 236-39.

Abstract Algebra from Axiomatic Geometry, 98-106.

An Approach to Euclidean Geometry Through Vectors, 218–35.

The Circle of Unit Diameter, 124-27.

Are Circles Similar? 9-13.

Congruency of Triangles by AAS, 246-47. Developing Spatial Perception via the Experimental Technique, 631-33.

A Geometric Approach to the Conic Sec-

tions, 348-50.

Geometric Solution of a Quadratic Equation, 647-49.

Geometric Techniques for Graphing, 2-5. A Mathematician's Progress, 722-27.

An Optical Method for Demonstrating the Point of Inflection on Curves, 250. The Position of Thomas Carlyle in the

History of Mathematics, 755-70. Radii of the Apollonius Contact Circles,

Radii of the Apollonius Contact Circles, 574-76.

The Teaching of Vectors in the German

Gymnasium, I, II, 382–93; 485–95. Variations on a Theme y = 2x - 3. 251–56. What Is a Trapezoid? 646.

GRAPHS AND GRAPHING

Antifreeze and Exponential Growth, 728-

A Geometric Approach to the Conic Sections, 348-50.

Geometric Solution of a Quadratic Equation, 647-49.

Geometric Techniques for Graphing, 2-5. Networks, 624-30.

Problems as Means, 6-8.

A Straight Line Model for Multiplication, 342-47. Using Geometry to Prove Algebraic Inequalities, 730-34.

Variations on a Theme y = 2x - 3, 251-56.

HISTORY OF MATHEMATICS

Famous mathematicians

The Bernoulli Family, 276-78.

Omar Khayyam, 140-42.

The Position of Thomas Carlyle in the History of Mathematics, 755-70.

Miscellaneous

Further Evidences of Primeval Mathematics, 668-70.

Historically Speaking, 36-41; 138-42; 276-78; 372-81; 476-84; 574-76; 666-70; 755-70.

Mathematics and the Nobel Prize, 667-68. The Public Image of "New Mathematics," 618-23.

The Remarkable Mental Arithmetic of the Egyptian Scribes, I, II, 372-81; 476-84.

Topics in

A Book Printed in the Year VII, 138-40. The Genesis of Point Set Topology; From Newton to Hausdorff, 36-41.

Radii of the Apollonius Contact Circles, 574-76.

A Recreational Problem in a Medieval Arithmetic, 666-67.

Romance of Mathematics, 744-48.

HUMOR, SATIRE

Human Interest Put into Mathematics, 561-63.

LANGUAGE OF MATHEMATICS

Grammarmathically Speaking, 640-45. The Public Image of "New Mathematics," 618-23.

A Recreational Problem in a Medieval Arithmetic, 666-67.

Romance of Mathematics, 744-48.

Steers, Pigs, and Chickens: A Study in Semantics, 558-60.

What is a Trapezoid? 646.

LITERATURE

Miscellaneous

Have You Read? 62-63; 147-48; 274-75; 370-71; 473-75; 572-73; 665; 753-54. What's New? 394; 443; 475; 535, 557; 670, 674; 743, 752.

Reviews and Evaluations, 64-66; 167-71; 286-91; 496-99.

Basic Concepts of Geometry, Prenowitz and Jordan, 498-99.

Basic Slide Rule Operation, Vol. I, Mittelstadt, 497.

Basic Technical Mathematics with Calculus, Washington, 290-91.

Delights of the Slide Rule, Clason, 64-65. Elementary Geometry from an Advanced Standpoint, Moise, 291.

Episodes from the Early History of Mathematics, Aaboe, 168; 287-88.

Essentials of Algebra and Trigonometry, Young, 288-89.

Factors and Primes, Seltzer, 66.

Foundations of Geometry, Wylie, 291. Functions of a Complex Variable and Some of Their Applications, Fuchs and Shabat, 498.

Groups, Papy, 498.

How to Use a Slide Rule, Sackheim, 65.

The Integers, Sprecklemeyer, 497. Logarithms, Sackheim, 65–66.

Mathematical Bafflers, Dunn (ed.), 64.

Mathematical Discourses: The Heart of Mathematical Science, Newsom, 496.

The Mathematical Principles of Natural Philosophy, Newton, 168; 287.

The Mathematics of Great Amateurs, Coolidge, 169.

Mathematics: The Study of Axiom Systems, Witter, 171.

Matrix Techniques, Trigonometry, and Analytic Geometry, Amir-Moez, 288.

Modern Introductory Analysis, Dolciani and others, 499.

The Non-Algebraic Elementary Functions: A Rigorous Approach, Yandl, 290.

150 Puzzles in Crypt-Arithmetic, Brooke, 64. Philosophy of Mathematics, Barker, 167–68; 286–87.

Philosophy of Mathematics, Benacerraf and Putnam, 167; 286.

Plane Trigonometry, 2nd ed., Spitzbart and Bardell, 289.

Plane Trigonometry with Tables, Heineman, 289-90.

Problems for the Slide Rule and Calculator, Goffe and Wilcox, 66.

Projective Geometry, Coxeter, 291.

Random Essays on Mathematics, Education, and Computers, Kemeny, 170.

The Real Numbers, Sprecklemeyer, 497.
Secondary School Mathematics, Vols. I and
II, Potvin, Bedford, and Pearson, 496.

Simplifying the Slide Rule, Marks, 65.
Theory of Relationships, Silverman and
Silverman, 171.

Treasury of Mathematics, Midonick (ed.), 169-70.

The Universal Encyclopedia of Mathematics, Newman, 170.

Ways of Thought of Great Mathematicians, Meschkowski, 169.

The World of Probability: Statistics in Science, Diamond, 66.

Logic

Aba Daba Daba, 236-39.

Algebra and the Development of Reason, 158-66.

Gestalt Psychology and Mathematical Insight, 656-61.

MATHEMATICS, GENERAL

Cultural values of

The Human Worth of Rigorous Thinking, 58-61.

Importance of Mathematics in General Education, 464-69.

Education

AAAS Cooperative Committee Effort Spans Quarter Century, 741-43. Classics in Mathematics Education, 58-61; 158-66; 261-65; 358-63; 464-69; 561-63; 656-61; 744-48.

High School Mathematics Reform in Greece, 671-74.

Mathematics in General Education, 426-31.

A Note Concerning Teaching Machines and Theories of Learning, 258-60.

Reaction vs. Radicalism in the Teaching of Mathematics, 261-65.

Research in the Teaching of High School Mathematics, 53-56.

Sets, Sinners, and Salvation, 358-63.

Foundations of

Axiom or Theorem? 107-9.

A Nontrivial Automorphism of the Field of Real Numbers, 716-21.

MATHEMATICS IN OTHER COUNTRIES

High School Mathematics Reform in Greece, 671-74.

International Mathematical Education, 42-52; 143-46; 279-85; 382-93; 485-95; 577-83; 671-74; 771-82.

Mathematical Reforms in English Secondary Schools, 42-52. (See also Letter to the Editor, 633, 637).

Mathematical Research and Instruction in Probability Theory, 771-82.

The Mathematics Program in Japanese Secondary Schools, 577-83.

Mathematics Teaching in Afghanistan, 1964, 143-46.

The Teaching of Vectors in the German Gymnasium, I, II, 382-93; 485-95.

What Does the Secondary-School Teacher of Mathematics Expect from the University? 279-85.

NCTM

Committee Reports

Annual Financial Report, 677-78.

NCTM Elections, 506.

The 1966-67 Budget, 587.

Report of the Nominating Committee, 67-75; 675.

Meetings

Registrations at NCTM Conventions, 676-77.

Your Professional Dates, 81–82; 184–85; 292–93; 395–96; 507; 593–94; 679; 786.

Minutes

Minutes of the Annual Business Meeting, 584-86.

Miscellaneous

Mathematics Teachers, On Guard! 522-30. Memberships and Subscriptions, 592.

Officers

NCTM Affiliated Group Officers and Editors, 172–83.

Committees, Projects, and Representatives (1965–66), 76–80.

Nominations for the 1967 Elections, 675. Officers, Directors, Committees, Projects, and Representatives (1966-67), 588-92. NCTM Representatives, 500-506.

NOTATION AND TERMINOLOGY—See also Language of mathematics.

Even More on Pascal's Triangle and Powers of 11, 461-63.

Pseudo-Ternary Arithmetic, 240-45.

The Use of the Taylor Series in Change of Bases, 134-37. (See also Letter to the Editor, 623, 633).

NUMBERS AND NUMBER SYSTEMS, THEORY

Algebraic Proof of an Old Number Trick, 133.

Concrete Examples of Commutative Non-associative Systems, 735–36.

Even More on Pascal's Triangle and Powers of 11, 461-63.

Factorization in Integral Domains, 432–36.
Fields and Near-Fields of Ordered Pairs of Reals, 335–41.

A General Divisibility Test, 31-33.

Implications of an Operation Uniquely Defined with Respect to an Equivalence Relation: The "Freeing" of Vectors, 115-23.

Pseudo-Ternary Arithmetic, 240-45.

Short Sequel to "Problem Solving in Mathematics," 650-51.

A Sieve for Primes p>5, 24-28.

Two Theorems Concerning Partial Fractions, 34-35.

The Use of the Taylor Series in Change of Bases, 134-37. (See also Letter to the Editor, 623, 633, 637.)

Opinions and philosophies Aba Daba Daba, 236-39.

Algebra and the Development of Reason, 158-66.

The Cambridge Report: Blueprint or Fantasy? 210-17.

Designs for Future Explorations in Programed Instruction, 110-14.

Gestalt Psychology and Mathematical Insight, 656-61.

The Human Worth of Rigorous Thinking, 58-61.

Importance of Mathematics in General Education, 464-69.

Mathematics in General Education, 426-

Mental Growth and the Art of Teaching,

706-15. An Open Letter to Authors and Publishers,

739-40.
A Proposal for the High School Mathematics Curriculum, 322-30.

A Proposal for the High School Mathematics Curriculum—What Does It Mean? 331-34.

The Public Image of "New Mathematics," 618-23.

Reaction vs. Radicalism in the Teaching of Mathematics, 261-65.

Sets, Sinners, and Salvation, 358-63.

The Teaching of Remedial Mathematics, 437-43.

What Does the Secondary-School Teacher of Mathematics Expect from the University? 279-85.

Why Not a Survey Course in Mathematics? 662-64.

Points and Viewpoints

A Time to Take Stock, 783-85. Welcome to a New Department, 57.

ORGANIZATIONS

AAAS Cooperative Committee Effort Spans Quarter Century, 741-43.

PROBABILITY

Mathematical Research and Instruction in Probability Theory, 771-82.

The Problem of the Three Prisoners, 131-32.

PROBLEM SOLVING

Antifreeze and Exponential Growth, 728-29.

Divisibility and Factorization of Gaussian Integers, 634–37.

Human Interest Put into Mathematics, 561-63.

Mathematics and the Teaching of Science, 536-42.

The Method of Equivalence, or How to Cure a Cold, 531-35.

The Problem of the Three Prisoners, 131-32.

Problems as Means, 6-8.

Reading and Mathematics, 149-57.

The Rule of 72, 638-39.

Short Sequel to "Problem Solving in Mathematics," 650-51.

Steers, Pigs, and Chickens: A Study in Semantics, 558-60.

PSYCHOLOGY

The Cambridge Conference Report: Blueprint or Fantasy? 210-17.

Gestalt Psychology and Mathematical Insight, 656-61.

Mental Growth and the Art of Teaching, 706-15.

RECREATIONAL MATHEMATICS

Algebraic Proof of an Old Number Trick, 133.

Human Interest Put into Mathematics, 561-63.

More About 1965 and 1966, 737-38.

The Problem of the Three Prisoners, 131-32.

A Recreational Problem in a Medieval Arithmetic, 666-67.

Short Sequel to "Problem Solving in Mathematics," 650-51.

RESEARCH

Education

Classroom Management, 749-52.

Gestalt Psychology and Mathematical Insight, 656-61.

An Investigation of the Effect of Types of Exercises on Mathematics Learning, 266-73.

Project D: Program for Talented Students in Mathematics in Secondary Schools in Hawaii, 564-71.

A Pattern for Research in the Mathematics Classroom, 418-25. Research in the Teaching of High School Mathematics, 53-56.

Trends in Mathematics Offerings and Enrollments, 652-55.

Mathematics

Mathematical Research and Instruction in Probability Theory, 771-82.

Miscellaneous

The Effects of High School Calculus on Students' First-Semester Calculus Grades at the University of Virginia, 470-72.

Experimental Programs, 53-57; 149-57; 266-73; 364-69; 470-72; 564-71; 662-64; 749-52.

Mathematics Teaching in Afghanistan, 1964, 143-46.

Prediction of Achievement in College Mathematics, 364-69.

Reading and Mathematics, 149-57.

Strategies for Teaching Concepts by Using Definitions, 455-57.

Why Not a Survey Course in Mathematics? 662-64.

SYMBOLISM

Pseudo-Ternary Arithmetic, 240-45.

TEACHER

Education

AAAS Cooperative Committee Effort Spans Quarter Century, 741-43.

High School Mathematics Reform in Greece, 671-74.

Mathematics Teachers, On Guard! 522-30. Mathematics Teaching in Afghanistan, 1964, 143-46.

What Does the Secondary-School Teacher in Mathematics Expect from The University? 279-85.

TEACHING METHODS

Discovery

Congruency of Triangles by AAS, 246-47.
Developing Spatial Perception via the Experimental Technique, 631-33.

Discovery-Type Investigation for Coordinate Geometry Students, 458-60.

The Hidden Potential of Low Achievers, 551-57.

A Mathematician's Progress, 722-27.

Reaction vs. Radicalism in the Teaching of Mathematics, 261-65.

Expository

An Approach to Euclidean Geometry Through Vectors, 218–35.

Axiom or Theorem? 107-9.

A Geometric Approach to the Conic Sections, 348-50.

The Method of Equivalence, or How to Cure a Cold, 531-35.

A Nontrivial Automorphism of the Field of

Real Numbers, 716-21.

Using Geometry to Prove Algebraic Inequalities, 730-34.

Miscellaneous

The Cambridge Conference Report: Blueprint or Fantasy? 210-17.

A Computer for Every Classroom! 356-57. On an Easy Construction of a Computing Machine, 351-56.

Grammarmathically Speaking, 640-45.
The Human Worth of Rigorous Thinking,

Mental Growth and the Art of Teaching, 706-15.

Problems as Means, 6-8.

 $R_x$  for Inertia, 128-30.

Strategies for Teaching Concepts by Using Definitions, 455-57.

The Teaching of Remedial Mathematics, 437-43.

Programmed Instruction

Classroom Management, 749-52.

Designs for Future Explorations in Programed Instruction, 110-14.

A Note Concerning Teaching Machines and Theories of Learning, 258-60.

An Open Letter to Authors and Publishers, 739-40.

Programming and Automation, 444-54. Research in the Teaching of High School Mathematics, 53-56.

Some Guidelines for Selecting a Programed Text in Mathematics, 14-23.

TELEVISION

Research in the Teaching of High School Mathematics, 53-56.

TESTS

R<sub>x</sub> for Inertia, 128-30.

TEXTBOOKS

Mathematics and the Teaching of Science, 536-42.

Some Guidelines for Selecting a Programed Text in Mathematics, 14-23.

TOPOLOGY

The Genesis of Point Set Topology: From Newton to Hausdorff, 36-41.

Networks, 624-30.

TRIGONOMETRY

The Circle of Unit Diameter, 124-27.
The Method of Equivalence, or How to Cure a Cold, 531-35.

VISUAL AIDS

A Computer for Every Classroom! 356-57.
On an Easy Construction of a Computing Machine, 351-55.

An Optical Method for Demonstrating the Point of Inflection on Curves, 250.

A Teacher-Made Slide Program, 248-49.