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- Fanciful hypotheses on the origin of the numeral forms. Cajori, Florian, XVIII, March 1925, 129-133.
- Fate and freedom. Korzybski, Alfred, XVI, May 1923, 274-290.
- Few classroom devices to stimulate interest in mathematics. Rabourn, Sara B. F., XX, Oct. 1927, 328-333.
- Few constructive phases of mathematics in life. Webber, W. Paul, J. P. Cole, and R. L. O'Quin, XIX, Dec. 1926, 449-455.
- Few determinants in building the course of study in mathematics. Jones, Gertrude, XXII, Nov. 1929, 397-404.
- Few lessons in calculus for high schools. Goff, Robert R., XV, April 1922, 307-308.
- Figures. Hunter, William L., XVII, Oct. 1924, 367.
- Finding plane areas by algebra. Reynolds, Joseph B., XXI, April 1928, 197-203.
- First aid in algebraic fractions. Fezandié, Margaret, XIX, Feb. 1926, 101.
- First lessons in demonstrative geometry. Newell, M. J., and G. A. Harp-er, XIV, Jan. 1921, 42-45.
- Form of the universe. Smith, David Eugene, XXI, Feb. 1928, 107-110.
- Formula for conjunction problems. Huffman, Pleasant, XV, March 1922, 184.
- Formula in ninth grade algebra. Kinney, J. M., XIV, Nov. 1921, 367-380.
- Formula in secondary education. Bigelow, O. H., XXI, Dec. 1928, 442-453.
- Four fundamental arithmetical processes in adults. Helseth, Inga Olla, XX, May 1927, 265-273.
- Four years of mathematics for commercial pupils. Hussey, Frederick K., XVII, Nov. 1924, 411-421.
- Fourth dimension.*
- Fourth dimension and hyperspace. Tromp, Theresa, XIX, March 1926, 140-146.
- Reflections on fourth dimension. Altieri, A. M., XVIII, Dec. 1925, 490-495.
- Fourth dimension and hyperspace. Tromp, Theresa, XIX, March 1926, 140-146.
- Freshman college mathematics.*
- Analysis of freshman college mathematics. Watson, E. E., XIX, Nov. 1926, 408-410.
- How much elementary algebra is remembered by freshmen when entering college? Eells, Walter Crosby, XIX, April 1926, 206-213.
- Human significance of mathematics. Schaaf, William L., XIX, Dec. 1926, 472-483.

- Inductive method in junior college mathematics. Christofferson, H. C., XIX, April 1926, 202-205.
- Romance in science. Miller, Bessie Irving, XV, Nov. 1922, 416-422.
- Textbooks in unified mathematics for college freshmen. Sanford, Vera, XVI, April 1923, 206-214.
- What amount of algebra is retained by college freshmen? Eells, Walter Crosby, XVIII, April 1925, 219-225.
- From the shelves of Dr. David Eugene Smith's unique mathematical historical library. Refior, Sophia R., XVII, May 1924, 269-273.
- Function concept in high school mathematics. Kinney, J. M., XV, Dec. 1922, 484-495.
- Functionality in mathematical instruction in schools and colleges. Hedrick, E. R., XV, April 1922, 191-207.
- Functions.*
- Function concept in high school mathematics. Kinney, J. M., XV, Dec. 1922, 484-495.
- Functionality in mathematical instruction in schools and colleges. Hedrick, E. R., XV, April 1922, 191-207.
- Functions in general and the function $[x]$ in particular. Carver, Walter B., XX, Dec. 1927, 429-434.
- Graph as a means of picturing relationships. Christofferson, H. C., XXI, April 1928, 227-238.
- Lesson of Dependence. Smith, David Eugene, XXI, April 1928, 214-218.
- Professor Hedrick's report on the function concept in elementary mathematics. Webb, Harrison E., XV, Oct. 1922, 364-368.
- Supplementary project in functional graphs. Georges, J. S., XIX, March 1926, 174-178.
- Use of the function concept in first year algebra. Booher, Eleanor E., XIX, Feb. 1926, 86-98.
- Functions in general and the function $[x]$ in particular. Carver, Walter B., XX, Dec. 1927, 429-434.
- Functions of intuitive and demonstrative geometry. Blank, Laura, XXII, Jan. 1929, 31-37.
- Fundamental principles of algebra. Modesitt, R. L., XV, Oct. 1922, 332-346.
- Future development of mathematical education. Moore, Charles N., XV, Dec. 1922, 478-483.
- Future of secondary instruction in geometry. Webb, Harrison E., XIV, Oct. 1921, 337-341.
- Games.*
- Mathematical contest. Walker, Helen M., XX, May 1927, 274-279.
- Mathematical games. Raster, Alfreda, XVII, Nov. 1924, 422-425.
- General mathematics.*
- Advantages of a general course in mathematics for the first two years in high school. McCoy, Louis A., XVI, Nov. 1923, 421-424.
- Case for general mathematics. Reeve, William David, XV, Nov. 1922, 381-391.
- Combined mathematics. Webber, W. Paul, XIV, Nov. 1921, 381-386.
- Experiment comparing the efficiency of general mathematics with algebra and geometry. Burks, W. D., XVII, Oct. 1924, 343-349.

- General mathematics. Schorling, Raleigh, XX, Feb. 1927, 65-81.
- Influence of general mathematics on the subject matter of mathematics and on the theory and technique of the teaching of mathematics. Blank, Laura, XXI, Oct. 1928, 316-325.
- Unified mathematics in secondary schools. Jones, Gertrude, XVII, May 1924, 290-300.
- General mathematics. Schorling, Raleigh, XX, Feb. 1927, 65-81.
- General trend of mathematics education in secondary schools. Reeve, William David, XVII, Dec. 1924, 449-458.
- Generalization. Lytle, Ernest B., XXII, Jan. 1929, 18-22.
- Geometric aids for elementary algebra. Wannemacher, Alberta S., XXII, Jan. 1929, 49-57.
- Geometry*, see also *fourth dimension, investigations, objectives, psychology, tests.*
- College entrance.*
- Beginning geometry and college entrance. Beatley, Ralph, XXI, Jan. 1928, 42-45.
- First lessons in.*
- Different beginning for plane geometry. Christofferson, H. C., XXI, Dec. 1928, 479-482.
- First lessons in demonstrative geometry. Newell, M. J., and G. A. Harper. XIV, Jan. 1921, 42-45.
- Geometry detected by Sherlock Holmes. Hedges, Blanche B., XIV, March 1921, 128-136.
- Introducing Mehalus to geometry. Potter, Mary A., XV, Oct. 1922, 357-360.
- Introduction to the study of geometry. Hefferman, John K., XIX, Feb. 1926, 78-80.
- Number of things for beginners in geometry. Richmond, Vesta A., XX, March 1927, 142-149.
- Pleasant approach to demonstrative geometry. Sadley, E. V., XIX, Dec. 1926, 484-486.
- Proving the equality of the base angles of an isosceles triangle. Nyberg, Joseph A., XXII, Oct. 1929, 318-319.
- Teaching of beginning geometry. Schwartz, A. J., XV, May 1922, 265-282.
- Historical considerations.*
- "Elementary geometry" and the "foundations." Webb, H. E., XIX, Jan. 1926, 1-12.
- Heresy and orthodoxy in geometry. Evans, George W., XIX, April 1926, 195-201.
- Postulates and sequence in Euclid. Evans, George W., XX, Oct. 1927, 310-320.
- Intuitive geometry.*
- Concerning orientation and application in geometry. Ziegler, D. G., XXII, Feb. 1929, 109-116.
- Functions of intuitive and demonstrative geometry. Blank, Laura, XXII, Jan. 1929, 31-37.
- Non-Euclidian geometry.*
- Non-Euclidean geometry. Bussey, W. H., XV, Dec. 1922, 445-459.
- Some varieties of space. Martin, Emilie N., XVI, Dec. 1923, 470-480.

Originals in geometry.

Original solution in plane geometry. Laird, Robert A., XV, Oct. 1922, 361-363.

Proof of an original exercise. Beyer, Walter, XX, Feb. 1927, 91-92.

Student difficulties in exercises in geometry. Perry, Winona M., XVIII, Feb. 1925, 79-82.

Solid geometry.

Course in solid geometry. Austin, William A., XIX, Oct. 1926, 349-361.

Drawing for teachers of solid geometry. Bradshaw, John W., XVII, I, Dec. 1924, 475-481; II, XVIII, Jan. 1925, 37-45; III, XIX, Nov. 1926, 400-407.

Popularizing plane and solid geometry. Pratt, Gertrude V., XXI, Nov. 1928, 412-421.

Radio and airplane distance. Nygaard, P. H., XXII, Feb. 1929, 117-120.

Some applications of algebra to theorems in solid geometry. Reynolds, Joseph B., XVIII, Jan. 1925, 1-9.

"Steradians" and spherical excess. Evans, George W., XV, Nov. 1922, 429-433.

Study of the cultivation of space imagery in solid geometry through the use of models. Schreiber, Edwin W., XVI, Feb. 1923, 102-111.

Tennis ball geometry. Hart, Howard F., XV, April 1922, 239-240.

Volume of a sphere. Jackman, Alonzo. Edited by C. H. Spooner. XV, Feb. 1922, 90-92.

Special topics in demonstrative geometry.

Applications of indeterminate equations to geometry. Tripp, M. O., XXI, May 1928, 268-272.

Assumptions and proofs. Stabler, E., Russell, XXI, Jan. 1928, 46-48.

"Attack" in propositions on inequality of lines. Haas, Arthur, XIX, April 1926, 228-234.

Congruence of circular areas. Bennett, Albert A., XVII, Oct. 1924, 369-371.

Finding plane areas by algebra. Reynolds, Joseph B., XXI, April 1928, 197-203.

Historic theorem in plane geometry. Carnahan, W. H., XV, Dec. 1922, 496.

Locophobia, its cause and cure. Selleck, George H., XXII, Nov. 1929, 382-389.

Proof of the Pythagorean theorem. Evans, George W., XVI, Nov. 1923, 440.

Proof of the theorem of Pythagoras. Knoer, Alvin, XVIII, Dec. 1925, 496-497.

Teaching incommensurables. Sanford, Vera, XIV, March 1921, 147-150.

Teaching of locus problems in elementary geometry. Aldrich, Fred D., XIV, April 1921, 200-205.

Teaching of proportion in plane geometry. Good, Warren R. and Hope H. Chipman. XXI, Dec. 1928, 454-464.

Why it is impossible to trisect an angle or to construct a regular polygon of 7 or 9 sides by ruler and compasses. Dickson, Leonard Eugene, XIV, May 1921, 217-223.

Teaching of geometry.

Comments on the teaching of geometry. Touton, Frank C., XIV, May 1921, 246-251.

- Definition of similarity. Evans, George W., XV, March 1922, 147-151.
- Direct cultural motivation for demonstrative geometry. Stroup, P., XX, March 1927, 173-177.
- Discussion (status of geometry). Hart H. F., XIX, Feb. 1926, 121-122.
- Example of geometry teaching by the laboratory method. Shippy, Van Zandt, XVII, May 1924, 286-287.
- Experimental geometry. Harper, G. A., XV, March 1922, 157-163.
- Fads and plane geometry. Merrell, H. D., XX, Jan. 1927, 5-18.
- Future of secondary instruction in geometry. Webb, Harrison E., XIV, Oct. 1921, 337-341.
- Geometry notes. Moriarity, M. M. S., XXI, May 1928, 280-291.
- Is geometry possible? Statham, Jeanette F., XXI, Oct. 1928, 353-356.
- Laboratory method in teaching of geometry. Austin, C. A., XX, May 1927, 286-294.
- Looking backward. McCullough, H. L., XX, Nov. 1927, 386-388.
- Purpose, method, and mode of demonstrative geometry. Hart, W. W., XVII, March 1924, 170-177.
- Reviews in geometry. Murphy, L. W., XVI, Nov. 1923, 440-441.
- Sequence of theorems in school geometry. Nunn, T. P., XVIII, Oct. 1925, 321-332.
- Some pedagogical aspects of geometry teaching. Sykes, Mabel, XX, Dec. 1927, 466-472.
- Some suggestions on the technique of teaching plane geometry. Cowley, E. B., XX, Nov. 1927, 370-374.
- Suggestions on conducting the recitation in geometry. Hassler, Jasper O., XIX, Nov. 1926, 411-418.
- Teaching geometry into its rightful place. Hassler, J. O., XXII, Oct. 1929, 333-341.
- Teaching plane geometry without a textbook. Strong, Theodore, XIX, Feb. 1926, 115-119.
- Technique and devices conducive to better teaching of geometry. Blank, Laura, XXI, March 1928, 171-181.
- Two methods of teaching geometry: syllabus *vs.* textbook. Ryan, James D., XXI, Jan. 1928, 31-36.
- What are the real values of geometry? Perry, Winona M., XXI, Jan. 1928, 51-54.
- When is a proof not a proof? Stroup, P., XIX, Dec. 1926, 499-505.
- Topics from modern geometry.*
- Circles through notable points of the triangle. Morris, Richard, XXI, Feb. 1928, 63-71.
- Isotomic points of the triangle. Morris, Richard, XXI, March 1928, 163-170.
- Stewart's theorem, with applications. Morris, Richard, XXI, Dec. 1928, 465-478.
- Geometry as a course in reasoning. McLaughlin, Henry P., XVI, Dec. 1923, 493-499.
- Geometry detected by Sherlock Holmes. Hedges, Blanche B., XIV, March 1921, 128-136.
- Geometry humanized. A school play in one act. Scott, Erma. XXI, Feb. 1928, 91-101.
- Geometry notes. Moriarity, M. M. S., XXI, May 1928, 280-291.

- Geometry of the junior high school. Brown, J. C., XIV, Feb. 1921, 64-70.
- Geometry speaks. Palmer, Eva M., XV, Dec. 1922, 496-500.
- Graph as a means of picturing relationships. Christofferson, H. C., XXI, April 1928, 227-238.
- Graphs as a part of coöperative mathematics. Durell, Fletcher, XXII, Feb. 1929, 65-79.
- Great mathematician as a schoolboy. Smith, David Eugene, and Vera Sanford, XIV, Nov. 1921, 362-366.
- Grouping in geometry classes. Weismann, H., XXII, Feb. 1929, 93-108.
- Grouping pupils according to ability. Werremeyer, D. W., XV, April 1922, 237-239.
- Greetings from the New England Association of Teachers of Mathematics. Vosburgh, W. L., XXI, Oct. 1928, 347-349.
- Habit in the education process. Webber, W. Paul, XVII, April 1924, 202-208.
- Handling problems in arithmetic by type. Moore, Charles D., XXII, Nov. 1929, 427-428.
- Has algebra certain real values for the high school student of today? Perry, Winona M., XX, Nov. 1927, 403-406.
- Heresy and orthodoxy in geometry. Evans, George W., XIX, April 1926, 195-201.
- High school mathematics clubs. Reed, Zulu, XVIII, Oct. 1925, 341-363.
- Higher mathematics*, see also *history of mathematics, statistics*.
- Applications of indeterminate equations to geometry. Tripp, M. O., XXI, May 1928, 268-272.
- Classification of positive integers as regards the ultimate sum of their digits. Miller, G. A., XVI, April 1923, 247-248.
- Elementary exposition of the theorem of Bernoulli with applications to statistics. Rietz, H. L., XIV, Dec. 1921, 427-434.
- Empirical results in the theory of numbers. Carmichael, R. D., XIV, Oct. 1921, 305-310.
- Empirical theorems in Diophantine analysis. Carmichael, R. D. XVI, May 1923, 257-265.
- Mechanics. Mirick, Gordon R., XVI, Feb. 1923, 87-93; April 1923, 236-241; May 1923, 291-294.
- Scales of notation. Mirick, Gordon R., and Vera Sanford, XVIII, Dec. 1925, 465-471.
- Historic theorem in plane geometry. Carnahan, W. H., XV, Dec. 1922, 496.
- Historical account of origin and growth of the National Council of Teachers of Mathematics. Austin, C. M., XXI, April 1928, 204-213.
- History of mathematics*.
- Absurdities due to division by zero. Cajori, Florian, XXII, Oct. 1929, 366-368.
- Arithmetical productiveness of utilitarian, social and scientific ideals; viewed historically. Myers, G. W., XX, Feb. 1927, 93-100.
- Controversies on mathematics between Wallis, Hobbes, and Barrow. Cajori, Florian, XXII, March 1929, 146-152.
- Dutch textbook of 1730. Simons, Lao Genevra, XVI, Oct. 1923, 340-347.
- Fanciful hypotheses on the origin of the numeral forms. Cajori, Florian, XVIII, March 1925, 129-133.

From the shelves of Dr. David Eugene Smith's unique mathematical historical library. Refior, Sophia R., XVII, May 1924, 269-273.

Great mathematician as a school boy. Smith, David Eugene and Vera Sanford, XIV, Nov. 1921, 362-366.

La Disme of Simon Stevin—the first book on decimals. Sanford, Vera, XIV, Oct. 1921, 321-333.

Oldest algorism in the French language. Houghtaling, Anna Elizabeth and Frances Marguerite Clarke, XIX, March 1926, 179-183.

Origin and development of our present method of extracting the square and cube roots of numbers. Nordgaard, Martin A., XVII, April 1924, 223-238.

Origin of our numerals. Sherman, Charles Pomeroy, XVI, Nov. 1923, 398-401.

Permutations in the 16th century Cabala. Turetsky, Morris, XVI, Jan. 1923, 29-34.

Place of the history and recreations of mathematics in teaching algebra and geometry. Simons, Lao G., XVI, Feb. 1923, 94-101.

Rabbi ben Ezra on permutations and combinations. Ginsburg, Jekuthiel, XV, Oct. 1922, 347-356.

Robert Recorde. Cajori, Florian, XV, May 1922, 294-302.

Romance of mathematics. Slaught, H. E., XX, Oct. 1927, 303-309.

Significant facts in the history of the metric system for teachers of junior and senior high school mathematics. Schreiber, Edwin W., XXII, Nov. 1929, 373-381.

Some lovers of the conic sections. Chapin, Margaret L., XIX, Jan. 1926, 36-45.

Use of mathematical history in teaching. Hassler, J. O., XXII, March 1929, 166-171.

Value of the history of Greek mathematics to secondary school teachers. Eells, Walter Crosby, XVIII, May 1925, 296-297.

Homogeneous grouping.

Ability classification in ninth grade algebra. Mensenkamp, L. E., XXII, Jan. 1929, 38-48.

Ability grouping in mathematical classes. Durell, Fletcher, XXI, Nov. 1928, 398-411.

Ability grouping of students in senior high school mathematics. Weimar, M. Bird, XXI, Feb. 1928, 102-106.

Adapting plane geometry to pupils of limited ability. Hildebrandt, Martha, XVIII, Feb. 1925, 102-110.

Adjusting algebra to ability levels through the time element. Cline, Jessie M., XXII, Oct. 1929, 309-317.

Adjusting the course of study in ninth grade mathematics to the ability of the pupil. Beck, Hildegard, XXI, Jan. 1928, 24-30.

Changes in subject matter and method to fit different ability groups in mathematics. Price, Lillis, XVII, Dec. 1924, 495-499.

Classification of pupils in algebra. Harnish, Walter E., XVII, Jan. 1924, 58.

Experiment in classification of pupils in algebra. Price, L., XVI, Jan. 1923, 24-28.

Experiment in testing and classifying pupils in beginning algebra. Austin, C. M., XVII, Jan. 1924, 46-56.

- Grouping in geometry classes. Weismann, H., XXII., Feb. 1929, 93-108.
- Grouping pupils according to ability. Werremeyer, D. W., XV, April 1922, 237-239.
- Hotz algebra scales in the Pacific Northwest. Eells, Walter Crosby, XVIII, Nov. 1925, 418-427.
- How Alice made Pi Mu Epsilon. Shaw, James B., XX, Oct. 1927, 344-348.
- How can I bring the soul of mathematics to my pupils? Huntington, Albert H., XV, March 1922, 164-171.
- How mathematical clubs and associations may become affiliated with the National Council of Teachers of Mathematics. XXI, Nov. 1928, 422-426.
- How much elementary algebra is remembered by freshmen when entering college? Eells, Walter Crosby, XIX, April 1926, 206-213.
- How to figure averages with the top of a shoe box; or the use of an alignment chart in averaging. Roberts, J. A., XVII, Dec. 1924, 471-474.
- Human significance of mathematics. Schaaf, William L., XIX, Dec. 1926, 472-483.
- Human worth of rigorous thinking. Keyser, Cassius J., XV, Jan. 1922, 1-5.
- Human interest put into mathematics. Leacock, Stephen, XXII, May 1929, 302-304.
- Humor.*
- How Alice made Pi Mu Epsilon. Shaw, James B., XX, Oct. 1927, 344-348.
- Human interest put into mathematics. Leacock, Stephen, XXII, May 1929, 302-304.
- Pursuit of zero. Rounds, Emma, XVII, Oct. 1924, 365-367.
- "If." Ruth L. Snyder. XXII, Dec. 1929, 482-486.
- Imagination in mathematics. Lovitt, W. V., XVII, May 1924, 263-268.
- Importance of mathematics. Davis, Alfred L., XVI, Nov. 1923, 441-442.
- Important contribution to the teaching of mathematics. Clark, John R., XIX, April 1926, 193-194.
- Improvement in algebra teaching. McCain, A. B., XIX, Feb. 1926, 112-114.
- Improvements in teaching algebra and geometry made possible by the new college board requirements. Elicker, Paul E., XVIII, March 1925, 164-170.
- Individual instruction.*
- Critical evaluation of individualized instruction in mathematics. Flewelling, Wilma Schaffer, XX, May 1927, 280-285.
- Individual instruction in ninth year algebra. Stokes, C. N., XVIII, April 1925, 209-218.
- Individualized instruction in geometry. Potter, Mary A., XIX, April 1926, 219-227.
- Individual work in algebra. Cooke, Martha C., XXII, Oct. 1929, 361-365.
- Middle of the road. Snyder, W. A., XX, Feb. 1927, 112-122.
- Study of mathematics under the individual system. Reese, Mary M., XV, Dec. 1922, 460-466.
- Vectors for beginners. Reynolds, Joseph B., XIV, Nov. 1921, 355-361.
- Individual instruction in ninth year algebra. Stokes, C. N., XVIII, April 1925, 209-218.
- Individualized instruction in geometry. Potter, Mary A., XIX, April 1926, 219-227.

- Individual work in algebra. Cooke, Martha C., XXII, Oct. 1929, 361-365.
- Inductive method in junior college mathematics. Christofferson, H. C., XIX, April 1926, 202-205.
- Influence of general mathematics on the subject matter of mathematics and on the theory and technique of the teaching of mathematics. Blank, Laura, XXI, Oct. 1928, 316-325.
- Influence of standardized tests on the curriculum in arithmetic. Upton, Clifford B., XVIII, April 1925, 193-208.
- Informal tests for diagnosis and remedial teaching in mathematics. Spencer, Peter L., XVI, March 1923, 175-182.
- Informational mathematics versus computational mathematics. Judd, Charles H., XXII, April 1929, 187-197. Errata, Oct. 1929, 332.
- International mathematical congress. Mirick, G. R., XVII, Oct. 1924, 379-383.
- Interest of pupils in high school mathematics and factors in securing it. Davis, Alfred, XX, Jan. 1927, 26-38.
- Interesting circulating decimal. Hirsdansky, Simon, XVII, Jan. 1924, 57-58.
- Interplay of mathematics and English. Macdonald, Louise Anderson, XVIII, April 1925, 284-295.
- Introducing Mechalus to geometry. Potter, Mary A., XV, Oct. 1922, 357-360.
- Introduction to the infinite. Smith, David Eugene, XXI, Jan. 1928, 1-9.
- Introduction to the study of geometry. Hefferman, John K., XIX, Feb. 1926, 78-80.
- Investigation in the teaching of the skills of ninth grade algebra. Schorling, Raleigh and Selma A. Lindell, XVIII, Oct. 1925, 375-377.
- Investigations*
- Analysis of the learning units in n processes in algebra. Pease, Glenn R., XXII, May 1929, 245-283.
- Causes of failure in plane geometry as related to mental ability. Crafts, Lilian L., XVI, Dec. 1923, 481-492.
- Comparison of two methods of arithmetic problem analysis. Clark, John R. and E. Leona Vincent, XVIII, April 1925, 226-233.
- Investigation in the teaching of the skills of ninth grade algebra. Schorling, Raleigh and Selma A. Lindell, XVIII, Oct. 1925, 375-377.
- Study of a pupil's knowledge of algebra at the beginning of his junior year in high school. Mirick, Gordon R., and Vera Sanford, XVIII, March 1925, 171-181.
- Study of the errors made in a ninth year algebra class. Wattawa, Virginia, XX, April 1927, 212-222.
- Study of the factors of success in first year algebra. Schreiber, Edwin W., XVIII, Feb. 1925, 63-78; March 1925, 141-163.
- Is geometry possible? Statham, Jeanette F., XXI, Oct. 1928, 353-356.
- Isotomic points of the triangle. Morris, Richard, XXI, March 1928, 163-170.
- Japanese problems. Hiyama, Shige, XVI, Oct. 1923, 359-365.
- Junior high school*, see also *general mathematics*.
- Articulation of junior and senior high-school mathematics. Van Denberg, Joseph K., XIV, Feb. 1921, 88-94.

- Certain mathematical ideals of the junior high school. Smith, David Eugene, XIV, March 1921, 124-127.
- Composite course for seventh and eighth grade mathematics. Articulation Committee for Mathematics of the Lake Shore Division of Illinois Teachers' Association, XV, Jan. 1922, 43-48.
- Current practice in junior high school mathematics. Worthington, Edward H., XIX, Feb. 1926, 72-76.
- Geometry of the junior high school. Brown, J. C., XIV, Feb. 1921, 64-70.
- Individual work in algebra. Cooke, Martha C., XXII, Oct. 1929, 361-365.
- Junior high school mathematics in Newton, Mass. Tracy, Sarah E., XVIII, March 1925, 134-140.
- Maintenance of fundamental arithmetical skills in the junior high school. Benz, H. E., XXI, Oct. 1928, 326-335.
- Mathematics in the junior high school. Clark, John R., XVIII, May 1925, 257-283.
- Mathematics in the junior high school. Taylor, E. H., XX, April 1927, 223-235.
- Mathematics plus. Miller, Florence Brooks, XXII, April 1929, 224-231.
- Next step for the administrator in junior high school mathematics. Van Denberg, Joseph K., XV, Jan. 1922, 28-29.
- Next step in content in junior high school mathematics. Smith, David Eugene, XV, Jan. 1922, 26-27.
- Place of mathematics in junior high school education. Rowlands, Agnes, XXII, Oct. 1929, 323-332.
- Prescribed versus elective mathematics in junior high schools. Snedden, David, XV, Feb. 1922, 105-109.
- Program of investigation and coöperative experimentation in the mathematics of the seventh, eighth, and ninth school years. Schorling, Raleigh and John R. Clark, XIV, May 1921, 264-275.
- Reorganized course in junior high school arithmetic. Brooks, Florence M., XIV, April 1921, 179-188.
- Unitary organization of the mathematics of the seventh, eighth and ninth grades. Breslich, E. R., XVI, April 1923, 228-235.
- What the state teachers college means to Bemidji financially. Rice, Mabel Frances, XXII, Oct. 1929, 342-347.
- Junior high school mathematics in Newton, Mass. Tracy, Sarah E., XVIII, March 1925, 134-140.
- Laboratory method in teaching of geometry. Austin, C. A., XX, May 1927, 286-294.
- Laboratory method of teaching mathematics in the classroom. Stone, Charles A., XVII, April 1924, 209-222.
- La Disme* of Simon Stevin—the first book on decimals. Sanford, Vera, XIV, Oct. 1921, 321-333.
- Layman looks at mathematics. French, John R. P., XXII, Oct. 1929, 348-360.
- Lesson of dependence. Smith, David Eugene, XXI, April 1928, 214-218.
- Lest we forget. Lindquist, Theodore, XX, Nov. 1927, 375-380.

- List of reference books and magazines for teachers of mathematics. Reeve, W. D., XV, May 1922, 303-307.
- Little journey to the land of mathematics. Crawford, Alma E., XVII, Oct. 1924, 336-342.
- Live problem material in algebra. Davis, Dwight S., XVI, Nov. 1923, 402-413.
- Locophobia, its cause and cure. Selleck, George H., XXII, Nov. 1929, 382-389.
- Logic.*
- Brief study of non-mathematical logic. Lennes, N. J., XVI, April 1923, 242-246.
- Logic of mathematical processes. Sloctemyer, Hugo F., XVI, March 1923, 162-169.
- Logic of mathematical processes. Sloctemyer, Hugo F., XVI, March 1923, 162-169.
- Looking backward. McCullough, H. L., XX, Nov. 1927, 386-388.
- Magic circles. Sanford, Vera, XVI, Oct. 1923, 348-349.
- Maintenance of fundamental arithmetical skills in the junior high school. Benz, H. E., XXI, Oct. 1928, 326-335.
- Making mathematics interesting. Barnes, Augusta, XVII, Nov. 1924, 404-410.
- Marks in mathematics.*
- Reliability of teachers' marks. Shriner, Walter O., XVII, Nov. 1924, 426-443.
- "Math." Hunter, William L., XIX, Feb. 1926, 77.
- Mathematical contest. Walker, Helen M., XX, May 1927, 274-279.
- Mathematical games. Raster, Alfreda, XVII, Nov. 1924, 422-425.
- Mathematical nightmare. Skerrett, Josephine, XXII, Nov. 1929, 413-417.
- Mathematical Objectives. R. M. Winger, XXII, Dec. 1929, 462-466.
- Mathematical recreations. Pierce, Martha, XIX, Jan. 1926, 13-24.
- Mathematics and modern life. Olds, George B., XXI, April 1928, 183-196.
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Solution of quadratic and cubic equations on the slide rule. XIX, March 1926, 162-165.
- Cooke, Martha C.
Individual work in algebra. XXII, Oct. 1929, 361-365.
- Cosby, Byron.
Place of the calculus in the training of the high school teacher. XVI, Nov. 1923, 431-439.
- Cowley, Elizabeth B.
Reply to "The position of the high school teacher of mathematics." XXII, Jan. 1929, 14-17.
Some suggestions on the technique of teaching plane geometry. XX, Nov. 1927, 370-374.
- Crafts, Lilian L.
Causes of failure in plane geometry as related to mental ability. XVI, Dec. 1923, 481-492.

- Crawford, Alma E.
Little journey to the land of mathematics. XVII, Oct. 1924, 336-342.
- Dake, L. Gilbert.
Arithmetic in the high school. XV, Feb. 1922, 119-125.
- Davis, Alfred.
Importance of mathematics. XVI, Nov. 1923, 441-442.
Interest of pupils in high school mathematics and factors in securing it. XX, Jan. 1927, 26-38.
Problems concerning the teaching of secondary mathematics. XV, Dec. 1922, 467-477.
Teaching pupils how to study mathematics: I, XIV, Oct. 1921, 311-320; II, Nov. 1921, 387-400; III, Dec. 1921, 454-468.
- Davis, Dwight S.
Live problem material in algebra. XVI, Nov. 1923, 402-413.
- Derby, Mary. See Russell, Helen G.
- Desing, Minerva.
Selecting tests for measuring achievement in high school mathematics. XXII, Nov. 1929, 390-396.
- Dickson, Leonard Eugene.
Why it is impossible to trisect an angle or to construct a regular polygon of 7 or 9 sides by ruler and compasses. XIV, May 1921, 217-223.
- Douglass, Harl R.
Measuring achievement in first year algebra. XVI, Nov. 1923, 414-420.
Study or recitation first in supervised study in mathematics classes. XXI, Nov. 1928, 390-397.
- Downey, Walter F.
New mathematics as a part of the new education, "its nature and function." XXI, April 1928, 239-243.
- Duncan, Myrtle H. See Russell, Helen G.
- Durell, Fletcher.
Ability grouping in mathematical classes. XXI, Nov. 1928, 398-411.
Graphs as a part of coöperative mathematics. XXII, Feb. 1929, 65-79.
- Edwards, Wm. Herbert.
Need for testing practice in curriculum revision. XXII, Oct. 1929, 320-322.
- Eells, Walter Crosby.
Hotz Algebra Scales in the Pacific Northwest. XVIII, Nov. 1925, 418-427.
How much elementary algebra is remembered by freshmen when entering college. XIX, April 1926, 206-213.
Value of the history of Greek mathematics to secondary school teachers. XVIII, May 1925, 296-297.
What amount of algebra is retained by college freshmen? XVIII, April 1925, 219-225.
- Elicker, Paul E.
Improvements in teaching algebra and geometry made possible by the new college board requirements. XVIII, March 1925, 164-170.
- English, Harry.
Review of Professor Moore's presidential address. XIX, March 1926, 129-139.

Evans, George W.

Checking up the prophets. XIX, Oct. 1926, 362-365.

Definition of similarity. XV, May 1922, 147-151.

Heresy and orthodoxy in geometry. XIX, April 1926, 195-201.

Postulates and sequence in Euclid. XX, Oct. 1927, 310-320.

Price of wisdom. XVI, Oct. 1923, 356-358.

Proof of the Pythagorean Theorem. XVI, Nov. 1923, 440.

Riddle from Archimedes. XX, May 1927, 243-252.

Some of Euclid's algebra. XX, March 1927, 127-141.

"Steradians" and spherical excess. XV, Nov. 1922, 429-433.

Evans, Griffith C.

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Ewing, James.

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Farmer, Susie B.

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Farrar, Alice.

Two variables. XX, Oct. 1927, 334-343.

Fawdry, R. C.

Reformed mathematical teaching. XVII, Feb. 1924, 65-71.

Fezandié, Margaret.

First aid in algebraic fractions. XIX, Feb. 1926, 101.

Word to the foolish. XIX, Feb. 1926, 100.

Flewelling, Wilma Shaffer.

Critical evaluation of individualized instruction in mathematics. XX, May 1927, 280-285.

Foberg, John A.

Pennsylvania state course of study in mathematics. XVI, May 1923, 266-273.

French, John R. P.

A layman looks at mathematics. XXII, Oct. 1929, 348-360.

Georges, J. S.

On the nature of algebraic language. XXI, March 1928, 135-150.

Study of procedures used in the determination of objectives in the teaching of mathematics. XXII, March 1929, 156-165.

Supplementary project in functional graphs. XIX, March 1926, 174-178.

Gibson, Charles S.

Some methods in subtraction. XVII, Dec. 1924, 486-494.

Ginsburg, Jekuthiel.

Professor Smith's literary activities (a bibliography). XIX, May 1926, 306-311.

Rabbi ben Ezra on permutations and combinations. XV, Oct. 1922, 347-356.

Goff, Robert R.

A few lessons in calculus for high schools. XV, May, 1922, 307-308.

Reflective process in geometry. XVII, May 1924, 287-289.

- Systematic procedure in the solution of algebraic problems. XVI, Oct. 1923, 350-355.
- Good, Warren R., and Hope H. Chipman.
Teaching of proportion in plane geometry. XXI, Dec. 1928, 454-464.
- Gorsline, W. W.
Slide rule in plane geometry. XVII, Nov. 1924, 385-403.
- Gould, Clarence G.
Art of questioning. XVI, Jan. 1923, 52-56.
- Greene, Harry A., and Ruth O. Lane, Validation of new types of plane geometry tests. XXII, May 1929, 293-301.
- Grossman August.
Analysis of the teaching of cancellation in algebraic fractions. XVII, Feb. 1924, 104-109.
- Gugle, Marie.
Recreational values achieved through mathematics clubs in secondary schools. XIX, April 1926, 214-218.
Revision of college preparatory mathematics. XIX, Oct. 1926, 321-327.
Symposium of discussion on the National Committee Report on junior high school mathematics. XIV, Jan. 1921, 26-28.
- Gulden, Minerva. See Russell, Helen G.
- Haas, Arthur.
"Attack" in propositions on inequality of lines. XIX, April 1926, 228-234.
- Haerter, Leonard D.
Use of the inventory test in plane geometry. XIX, March 1926, 147-154.
- Hagan, Irene G.
Changeable changeless naught. XIX, Feb. 1926, 102-103.
- Hall, John J.
Discussion: the rule for the multiplication of two negative numbers. XIX Nov. 1926, 429-432.
- Hanna, John Calvin.
Vitalizing instruction in geometry. XV, May 1922, 308-310.
- Harnish, Walter E.
Classification of pupils in algebra. XVII, Jan. 1924, 58.
- Harper, G. A.
Experimental geometry. XV, March 1922, 157-163.
- See Newell, M. A.
- Hart, Howard F.
Communications. XIV, April 1921, 207-208.
Discussion: status of geometry. XIX, Feb. 1926, 121-122.
Notes on Mr. Evans' paper in the March Teacher. XV Oct. 1922, 360-361.
Tennis ball geometry. XV, April 1922, 239-240.
- Hart, W. W.
Purpose, method and mode of demonstrative geometry. XVII, March 1924, 170-177.
- Hassler, Jasper O.
Suggestions on conducting the recitation in geometry. XIX, Nov. 1926, 411-418.
Teaching geometry into its rightful place. XXII, Oct. 1929, 333-341.

- Use of mathematical history in teaching. XXII, March 1929, 166-171.
- Hatton, Mary Caroline.
Mathematics club. XX, Jan. 1927, 39-45.
— and Doris H. Smith.
Falling in love with plain geometry (a play). XX, Nov. 1927, 389-402.
- Hawley, James B.
Team work in elementary algebra. XVI, April 1923, 248-250.
- Hedges, Blanche B.
Geometry detected by Sherlock Holmes. XIV, March 1921, 128-136.
- Hedrick, E. R.
Functionality in mathematical instruction in schools and colleges. XV, April 1922, 191-207.
Remarks on the Report of the National Committee on Mathematical Requirements on college entrance requirements. XIV, March 1921, 137-142.
- Hegeman, Andrew S.
Certain cases of extraneous roots. XV, Feb. 1922, 110-118.
- Hefferman, John K.
Introduction to the study of geometry. XIX, Feb. 1926, 78-80.
- Helseth, Inga Olga.
Four fundamental arithmetical processes in adults. XX, May 1927, 265-273.
- Hildebrandt, Martha.
Adapting plane geometry to pupils of limited ability. XVIII, Feb. 1925, 102-110.
- Hirsdansky, Simon.
Interesting circulating decimal. XVII, Jan. 1924, 57-58.
- Hiyama, Shige.
Japanese problems. XVI, Oct. 1923, 359-365.
- Houghtaling, Anna Elizabeth, and Frances Marguerite Clarke.
Oldest algorism in the French language. XIX, March 1926, 179-183.
- Howarth, Helen E.
Cultural value of mathematics. XVI, March 1923, 150-156.
- Howell, Nathan R.
Teaching percentage with a ruler. XV, Nov. 1922, 436-439.
- Huffman, Pleasant.
Formula for conjunction problems. XV, March 1922, 184.
- Hunter, William L.
Figures. XVII, Oct. 1924, 367.
"Math." XIX, Feb. 1926, 77.
- Huntington, Albert H.
How can I bring the soul of mathematics to my pupils? XV, March 1922, 164-171.
- Hussey, Frederick K.
Four years of mathematics for commercial pupils. XVII, Nov. 1924, 411-421.
- Ingraham, M. H.
Williams James and Henri Poincaré. XX, May 1927, 253-264.
- Jablonower, Joseph.
Project method and the socialized recitation. XXI, Dec. 1928, 431-441.

- Opportunities for transfer making in elementary mathematics. XXI, May 1928, 292-302.
- Understanding and practice. XXI, Feb. 1928, 111-115.
- Jackman, Alonzo.
Volume of a sphere. XV, Feb. 1922, 90-92. (Edited by C. H. Spooner)
- Jackson, Dunham.
Notion of limit. XVII, Feb. 1924, 72-77.
College entrance requirements in geometry. XXII (Dec. 1929), 487.
- Johnson, Elsie Parker.
Teaching pupils the conscious use of a technique of thinking. XVII, April 1924, 191-201.
- Johnson, J. T.
Some comments on the first yearbook by the National Council of Teachers of Mathematics. XIX, Nov. 1926, 434-441.
- Jones, Gertrude.
Few determinants in building the course of study in mathematics. XXII, Nov. 1929, 397-404.
Unified mathematics in secondary schools. XVII, May 1924, 290-300.
- Judd, Charles H.
Informational mathematics versus computational mathematics. XXII, April 1929, 187-197. Errata to this article. XXII, Oct. 1929, 332.
- Judkins, Pearl.
Applied mathematics in high schools. XIX, Feb. 1926, 81-85.
- Kane, Sister M. Gabriel.
Cultural value of mathematics. XV, April 1922, 228-236.
- Karpinski, Louis C.
Permanent nature of the necessity for mathematics in the secondary schools. XXII, April 1929, 197-202.
- Kempner, Aubrey J.
Cultural value of mathematics. XXII, March 1929, 127-145.
Extension of concepts in mathematics. XVI, Jan. 1923, 1-23.
- Keyser, Cassius J.
Concerning the disciplinary value of mathematics. XVI, Feb. 1923, 123.
Human worth of rigorous thinking. XV, Jan. 1922, 1-5.
Speech at dinner in honor of Professor Smith. XIX, May 1926, 274-275.
- Kilpatrick, William Heard.
Next step in method. XV, Jan. 1922, 16-25.
- Kinney, J. M.
Calculus in the high school. XVI, Oct. 1923, 321-331.
Function concept in high school mathematics. XV, Dec. 1922, 484-495.
The formula in ninth grade algebra. XIV, Nov. 1921, 367-380.
- Knoer, Alvin.
Proof of the theorem of Pythagoras. XVIII, Dec. 1926, 496-497.
- Korzybski, Alfred.
Fate and freedom. XVI, May 1923, 274-290.
- Laird, John M.
Mathematics as used by the actuary. XVI, Dec. 1923, 500-503.
- Laird, Robert A.
Original solution in plane geometry. XV, Oct. 1922, 361-363.

- Landis, Edward H. See Richardson, R. P.
- Lane, Ruth. See also Greene, Harry A.
Uses of cardboard. XVIII, April 1925, 239-241.
- Leacock, Stephen.
Human interest put into mathematics. XXII, May 1929, 302-304.
- Lennes, N. J.
Brief study in non-mathematical logic. XVI, April 1923, 242-246.
- Lietzmann, W.
New types of schools in Germany and their curricula in mathematics.
XVII, March 1924, 148-153.
- Lindell, Selma A. See Schorling, Raleigh.
- Lindquist, Theodore.
Lest we forget. XX, Nov. 1927, 375-380.
- Lipka, Joseph.
Alignment charts. XIV, April 1921, 171-178.
- Locke, L. Leland.
Mathematics of the calculating machine. XVII, Feb. 1924, 78-86.
Some mathematics of the calculating machine. XV, Nov. 1922, 423-428.
- Loomis, Hiram B.
Open letter. XX, Jan. 1927, 1-4.
- Lovitt, W. V.
Continuity in mathematics and everyday life. XVII, Jan. 1924, 31-34.
Imagination in mathematics. XVII, May 1924, 263-268.
Teaching by parables. XXI, Jan. 1928, 10-17.
- Luccock, Ethel.
Memory and marks in mathematics. XVII, May 1924, 274-282.
- Lytle, Ernest B.
Generalization. XXII, Jan. 1929, 18-22.
- McCain, A. B.
Improvement in algebra teaching. XIX, Feb. 1926, 112-114.
- McCaughn, J. Z. A.
"You never can tell." XVII, Jan. 1924, 58-60.
- McCoy, Louis A.
Achievement test in solid geometry. XXI, March 1928, 151-162.
Advantages of a general course in mathematics for the first two years
in high school. XVI, Nov. 1923, 421-424.
- McCullough, H. L.
Looking backward. XX, Nov. 1927, 386-388.
- Macdonald, Louise Anderson.
Interplay of mathematics and English. XVIII, April 1925, 284-295.
- McFarlane, C. T.
Presentation to Teachers College of a portrait of Professor Smith.
XIX, May 1926, 297-298.
- McLaughlin, Henry P.
Algebraic magic squares. XIV, Feb. 1921, 71-77.
Geometry as a course in reasoning. XVI, Dec. 1923, 493-499.
Plan for meetings of mathematics teachers in a high school. XXII,
Nov. 1929, 418-426.
- McMackin, Frank J.
Eclipse. XVIII, May 1925, 298-299.

- McWilliams, Lulu E.
Study of pupil reactions. XXII, May 1929, 284-292.
- Macy, V. Everit.
Address at the presentation to Teachers College of a portrait of Professor Smith. XIX, May 1926, 302.
- Malsch, Fritz.
Teaching of mathematics in Germany since the war (translated by Ralph Beatley). XX, Nov. 1927, 355-369.
- Marsh, Harry B.
Why and how in algebra. XXI, Feb. 1928, 72-82.
- Martin, E. J.
Mathematics in industry and research. XXII, March 1929, 172-177.
- Martin, Emilie N.
Some varieties of space. XVI, Dec. 1923, 470-480.
- Meeks, L. H.
Some interesting sidelights upon elementary mathematics introducing a new expansion of binomial theorem. XIX, March 1926, 166-168.
- Mensenkamp, L. E.
Ability classification in ninth grade algebra. XXII, Jan. 1929, 38-48.
Some aspects of correlation theory. XVI, Feb. 1923, 112-122.
- Merrell, H. D.
Fads and plane geometry. XX, Jan. 1927, 5-18.
- Merrill, Helen A.
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- Meserve, Harrison G.
Mathematics one hundred years ago. XXI, Oct. 1928, 336-343.
- Messick, A. I.
Effect of certain types of speed drills in arithmetic. XIX, Feb. 1926, 104-109.
- Metzler, W. H.
Editorial. XIV, Jan. 1921, 46-47.
- Mielziner, Leo.
Address at the presentation to Teachers College of a portrait of Professor Smith. XIX, May 1926, 299-300.
- Miller, Bessie Irving.
Romance in science. XV, Nov. 1922, 416-422.
- Miller, Florence Brooks.
A near tragedy. XXII, Dec. 1929, 472-481.
Mathematics plus. XXII, April 1929, 224-231.
- Miller, G. A.
Classification of positive integers as regards the ultimate sum of their digits. XVI, April 1923, 247-248.
Public honors for mathematical contributions. XVI, Oct. 1923, 335-339.
- Minnick, John Harrison.
Aims of mathematical education. XIV, Oct. 1921, 297-304.
Communications. XIV, April 1921, 206.
Cultural value of secondary mathematics. XVI, Jan. 1923, 35-40.
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- Mirick, Gordon R.
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- Report of the seventy-ninth meeting of the American Association for the Advancement of Science, XVIII, Feb. 1925, 119-121.
 ——— and Vera Sanford.
 Elective course in mathematics for the eleventh and twelfth school years, XIX, April 1926, 235-241.
 Scales of notation, XVIII, Dec. 1925, 465-471.
 Study of a pupil's knowledge of algebra at the beginning of his junior year in high school, XVIII, March 1925, 171-181.
- Modesitt, R. L.
 Fundamental principles of algebra, XV, Oct. 1922, 332-346.
- Moore, Charles D.
 Handling problems in arithmetic by type. XXII, Nov. 1929, 427-428.
- Moore, Charles N.
 Future development of mathematical education, XV, Dec. 1922, 478-483.
 Mathematics and the future, XXII, April 1929, 203-214.
- Moriarity, M. M. S.
 Geometry notes, XXI, May 1928, 280-291.
- Moritz, Robert E.
 On the precedence of numerical operations, XVI, Nov. 1923, 425-430.
- Morley, Raymond K.
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- Morris, Richard.
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 Stewart's theorem with applications, XXI, Dec. 1928, 465-478.
- Moulton, E. J.
 Probability applied to grades, XVI, March 1923, 141-149.
- Munch, H. F.
 Suggestions for a first lesson in algebra. XXII, Dec. 1929, 467-471.
- Murphy, L. W.
 Reviews in geometry, XVI, Nov. 1923, 440-441.
- Myers, George W.
 Arithmetical productiveness of utilitarian, social and scientific ideals; viewed historically, XX, Feb. 1927, 93-100.
 Outstanding pedagogical principles now functioning in high school mathematics, XIV, Feb. 1921, 57-63.
 Reaction vs. radicalism in the teaching of mathematics, XV, March 1922, 137-146.
- Neville, Harvey A.
 Mathematics and science, XX, Jan. 1927, 19-25.
- Newell, M. J. and G. A. Harper.
 First lessons in demonstrative geometry, XIV, Jan. 1921, 42-45.
- Nordgaard, Martin A.
 Earlier place for the calculus in the curriculum, XX, Oct. 1927, 321-327.
 Origin and development of our present method of extracting the square and cube roots of numbers, XVII, April 1924, 223-238.
- Nunn, T. Percy.
 Sequence of theorems in school geometry, XVIII, Oct. 1925, 321-332.
- Nyberg, Joseph A.
 Classroom methods in teaching algebra, XIX, Oct. 1926, 366-372.

- Objectives in intermediate algebra, XX, Dec. 1927, 451-458.
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- Nygaard, P. H.
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- Olds, George B.
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- O'Quin, R. L. See Webber, W. Paul.
- Orleans, Jacob S. See Orleans, Joseph B.
- Orleans, Joseph B. and Jacob S. Orleans.
 Study of prognosis in high school algebra, XXII, Jan. 1929, 23-30.
- Osburn, W. J.
 Ten reasons why pupils fail in mathematics, XVIII, April 1925, 234-238.
- Osgood, W. F. and others.
 Twenty years of the Association of Teachers of Mathematics in New England, XVII, Feb. 1924, 94-103.
- Otis, Arthur S.
 Visual method of solving arithmetic problems, XXI, Dec. 1928, 483-489.
- Overman, J. R.
 Problem of homework papers, XIV, March 1921, 143-146.
 Teaching the algebraic language to junior high school pupils, XVI, April 1923, 215-227.
- Palmer, Eva M.
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- Pearson, M. H.
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 Some time-saving methods in teaching graphing, XVII, Feb. 1924, 117-119.
- Pease, Glenn R.
 Analysis of the learning units in n processes in algebra, XXII, May 1929, 245-283.
- Percival, W. P.
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- Perry, Winona M.
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- Pierce, Martha.
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- Pilliod, Mary Phillips.
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- Plimpton, George A.
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 Speech at dinner in honor of Professor Smith, XIX, May 1926, 263-265.
- Potter, Mary A.

- Attempt to improve computation, XX, Nov. 1927, 381-385.
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Introducing Mechalus to geometry, XV, Oct. 1922, 357-360.
- Pratt, Gertrude V.
Popularizing plane and solid geometry, XXI, Nov. 1928, 412-421.
- Pressey, Luella Cole.
Words of classical derivation in common mathematical vocabulary, XIX, Oct. 1926, 343-348.
- Price, Lillis.
Changes in subject matter and method to fit different ability groups in mathematics, XVII, Dec. 1924, 495-499.
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- Quigley, Mary J.
Meeting the attacks on algebra, XIX, March 1926, 155-161.
- Rabourn, Sara B. F.
Few classroom devices to stimulate interest in mathematics, XX, Oct. 1927, 328-333.
- Rankin, W. W.
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- Raster, Alfreda.
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- Reed, Zulu.
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- Reese, Mary M.
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- Reeve, William David.
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- Refior, Sophia.
Mathematical clubs in the high school, XV, Nov. 1922, 434-435.
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- Reynold, Lena E.
Papers by pupils of the plane geometry classes of Fullerton Union High School, XV, March 1922, 172-181.
- Reynolds, Joseph B.
Finding plane areas by algebra, XXI, April 1928, 197-203.
Some applications of algebra to theorems in solid geometry, XVIII, Jan. 1925, 1-9.
Vectors for beginners, XIV, Nov. 1921, 355-361.

- Rice, Mabel Frances.
What the state teachers college means to Bemidji financially, XXII, Oct. 1929, 342-347.
- Rice, Harris.
Errors in computations and the rounded number, XV, Nov. 1922, 392-404.
- Richards, Harold F.
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- Richardson, R. P.
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- Richmond, Vesta A.
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- Rietz, H. L.
Elementary exposition of the theorem of Bernoulli with applications to statistics, XIV, Dec. 1921, 427-434.
- Roantree, William F.
Question of method in subtraction, XVII, Feb. 1924, 110-116.
- Roberts, J. A.
How to figure averages with the top of a shoe box; or the use of an alignment chart in averaging, XVII, Dec. 1924, 471-474.
- Roe, H. B.
Minimum mathematical requirements for agricultural study, XV, Jan. 1922, 30-42.
- Rogers, Agnes L.
Psychological tests of mathematical ability and educational guidance, XVI, April 1923, 193-205.
- Rorer, Jonathan T.
Present tendencies in high school mathematics, XVII, Jan. 1924, 22-30.
- Rosenberger, Noah Bryan.
Place of elementary calculus in senior high school mathematics, XV, March 1922, 152-156.
- Rounds, Emma.
Pursuit of zero, XVII, Oct. 1924, 365-367.
- Rowlands, Agnes Grant.
Concerning the intercommunion of mathematics and astronomy, XVI, Jan. 1923, 48-51.
Craig's edition of Euclid; its "use and application" of the principal propositions given, XVI, Nov. 1923, 391-397.
Place of mathematics in junior high school education, XXII, Oct. 1929, 323-332.
- Rudman, Barnet.
Teaching logarithms to high school pupils in eight recitation periods, XIX, Dec. 1926, 456-471.
Teaching the verbal problem in intermediate algebra, XXII, Feb. 1929, 83-92.
- Rugg, Harold O.
Curriculum making: what shall constitute the procedure of national committees? XVII, Jan. 1924, 1-21.
- Russell, Helen G., and Myrtle H. Duncan, Minerva Gulden, Rebecca Symmes, and Mary Derby.
Mathematics clubs, XVII, May 1924, 283-285, and October 1924, 350-358.
- Russell, James E.

- Address at the presentation to Teachers College of a portrait of Professor Smith, XIX, May 1926, 300-301.
- Ryan, James D.
Two methods of teaching geometry: syllabus *vs.* textbook, XXI, Jan. 1928, 31-36.
- Ryan, W. J.
Values in high school mathematics, XIV, April 1921, 194-199.
- Sadley, E. V.
Pleasant approach to demonstrative geometry, XIX, Dec. 1926, 484-486.
- Sanford, Vera.
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La Disme of Simon Stevin—the first book on decimals, XIV, Oct. 1921, 321-333.
Magic circles, XVI, Oct. 1923, 348-349.
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Textbooks in unified mathematics for college freshmen, XVI, April 1923, 206-214.
- See Mirick, Gordon R.
- See Smith, David Eugene.
- Sangren, Paul V.
Need for more adequate measurements of achievement in arithmetic, XXII, Jan. 1929, 1-13.
- Schaaf, William L.
Human significance of mathematics, XIX, Dec. 1926, 472-483.
- Schlierholz, Tillie.
Number play in three acts, XVII, March 1924, 154-169.
- Schorling, Raleigh.
Experimental courses in secondary school mathematics, XV, Feb. 1922, 63-78.
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Symposium of discussion on the National Committee Report on junior high school mathematics, XIV, Jan. 1921, 37-41.
- See also Research department.
- and Selma A. Lindell.
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- Alexander, Georgia and John Dewey. *Alexander-Dewey Arithmetics*, XIV, Nov. 1921, 411.
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- Bosmans, Henri, editor. *La "Thiende" de Simon Stevin*. David Eugene Smith. XVIII, May 1925, 302-303.
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— and Arthur S. Otis. *Modern Plane Geometry*. H. C. Christofferson. XX, May, 1927, 300-301.
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- College Board and Regents. *Questions and Answers in Geometry*. XVI, Oct. 1923, 382-383.
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- Judd, Charles Hubbard. *Psychological Analysis of the Fundamentals of Arithmetic*. XX, Oct. 1927, 351.
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- Keal, H. M. and C. J. Leonard. *Mathematics for Electrical Students*. XIV, Nov. 1921, 411.
- *Mathematics for Shop and Drawing Students*. XIV, Nov. 1921, 411.
- Kelley, Truman L., G. M. Ruch and Lewis M. Terman. *Stanford Achievement Tests*. XVI, May 1923, 320.
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- Knight, F. B., E. M. Luse and G. M. Ruch. *Problems in the Teaching of Arithmetic*. XVII, Oct. 1924, 374-375.
- *Standard Service Arithmetics—Book Two*. Josephine Haley. XIX, Oct. 1926, 377.
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- Lavoisier and Laplace. *Mémoire sur la Chaleur*. David Eugene Smith. XV, Oct. 1922, 379.
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- and M. Weiner. *Plane Geometry Review*. XV, Oct. 1922, 377.
- . *Geometry Note Book*.
- Lietzmann, W. *Erkenntnislehre im mathematischen Unterricht der Oberklassen*. David Eugene Smith. XIV, April 1921, 215-216.
- . *Aus der Mathematik der Alten*. David Eugene Smith. XXII, Feb. 1929, 124-125.
- . *Überblick über die Geschichte der Elementarmathematik*. David Eugene Smith. XIX, Jan. 1926, 57.
- . *Ueberblick über die Geschichte der Elementar-mathematik*. David Eugene Smith. XXII, Feb. 1929, 124-125.
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- Marsh, Harry B. and James H. Van Sickle. *Pilot Arithmetics*, Books Two and Three. E. C. Hinkle. XVII, Dec. 1924, 500-501.
- Milne, William J. and Walter F. Downey. *Milne-Downey First Year Algebra*. George W. Evans. XVII, May 1924, 315-317.
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- Mullins, George Walker and David Eugene Smith. *Freshman Mathematics*. Martin Nordgaard. XX, Dec. 1927, 473-477.
- Neely, R. R. and James Killius. *Modern Applied Arithmetic*. XV, Jan. 1922, 57-58.
- Neufeld, J. L. *Elementary Algebra*. XIV, March, 1921, 159.
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- *Principles and Methods of Teaching Arithmetic*. XIV, May 1921, 294-295.
- Palmer, Claude Irwin and William Charles Krathwohl. *Analytic Geometry*. XIV, Nov. 1921, 411.
- Palmer, C. I. and C. W. Seigh. *Plane and Spherical Trigonometry*. Sophia R. Refior. XVIII, Nov. 1925, 440-441.
- Palmer, Taylor, Farnum. *Plane Geometry*. XVIII, Nov. 1925, 438.
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- Diagnostic Study of the Teaching Problem in High School Mathematics*. XIX, April 1926, 250.
- *General Mathematics*, Book Two. George W. Evans. XVI, Jan. 1923, 57-58.
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- and Mary S. Taylor. *Arithmetic for Teachers*. L. Leland Locke. XIX, Feb. 1926, 123.
- *Arithmetic for Teachers*. XX, April 1927, 238.
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- High School Mathematics; and Suggestions for a Modern Presentation of the Subject.* George W. Evans. XV, March 1922, 185-186.
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- Rushmer, C. E. and C. J. Dence. *High School Algebra.* XVI, Oct. 1923, 382.
- Rutledge, George. *Topics in the Calculus.* XVI, Dec. 1923, 504.
- Sampson, Charles H. See Moyer, James A.
- Sanford, Vera. See Karpinski, C. L.; Keyser, Cassius J.; Simons, Lao Geneva; and also Smith, David Eugene.
The History and Significance of Certain Standard Problems in Algebra. Lao G. Simons. XXII, Feb. 1929, 125-126.
- Schorling, Raleigh. *Tentative List of Objectives in the Teaching of Junior High School Mathematics with Investigations for the Determining of Their Validity.* Walter F. Downey. XVIII, Dec. 1925, 503-505.
- and John R. Clark. *Modern Algebra.* George W. Evans. XVII, May 1924, 315-317.
- *Modern Mathematics.* William F. Roantree. XVII, May 1924, 312-314.
- *Modern Mathematics Seventh School Year and Eighth School Year.* New edition. Jas. H. Zant. XXII, Nov. 1929, 431-432.
- *Practice Exercises for Accuracy and Speed in the Fundamentals of Arithmetic.* XVII, Feb. 1924, 127.
- and Selma L. Lindell. *Instructional Tests in Algebra.* C. N. Stokes. XX. Jan. 1927, 50-52.
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- Sheppard, Mel and Anna Vaughan. *Games and Play for School Morale.* XIV, Nov. 1921, 412.
- Shibli, J. *Plane and Spherical Trigonometry.* Jas. H. Zant. XXII, Nov. 1929, 432-433.
- Simons, Lao Geneva. *Introduction of Algebra into American Schools in the Eighteenth Century.* Vera Sanford. XVIII, Nov. 1925, 443-445.
See also Sanford, Vera, and Smith, David Eugene.
- Smith, David Eugene. *Essentials of Plane Geometry.* XVI, Nov. 1923, 447-448.
- *The Geometry of René Descartes.* Lao S. Simons, XIX, Oct. 1926, 379.
- *History of Mathematics.* Vera Sanford. XVIII, May 1925, 305-308.
- "Mathematics"—*Our Debt to Greece and Rome.* Vera Sanford. XVII, Feb. 1924, 122-123.
- *The Progress of Arithmetic in the Last Quarter of a Century.* E. C. Hinkle. XVI, Dec. 1923, 507-508.
- See Boon, F. C.; Bosmans, Henri; Carey, F. S.; Carnot, Lazaire; Clairant, Alexis-Claude; Drecker; Heath, Thomas L.; Jackson, C. S.; Lavoisier; Lietzman, W.; Mathematics and Life Activities; Mullins,

- George Walker and—; Ostwald; Peet, T. Eric; Wieleitner, Heinrich; Wolff, Georg.
- See Bavink, R.; Dintzl, Erwin; Kliem, Fritz; Löffler, Eugen; Heinrich.
- and John A. Foberg and William David Reeve. *General High School Mathematics*, Books I and II. XX, April 1927, 239-240.
- and Marcia L. Latham. *Geometry of Rene Descartes*. Lao G. Simons. XIX, Oct. 1926, 379.
- and William David Reeve. *Essentials of Algebra*. XVII, May 1924, 317.
- and William David Reeve. *Essentials of Algebra*, Book II. Sophia R. Refior. XVIII, Nov. 1925, 442-443.
- and William David Reeve. *Teaching of Junior High School Mathematics*. J. P. Everett. XXI, Jan. 1928, 55-56.
- and William David Reeve and Edward L. Morss. *Exercises and Tests in Algebra*. C. N. Stokes. XX, Jan. 1927, 51-52.
- *Exercises and Tests in Plane Geometry*. Vera Sanford. XXII, March 1929, 181.
- Smith, James H. See Bonser, Frederick G.
- Smothers, Arthur E. See Clark, Mary S.
- Steinmetz, Charles P. *Four Lectures on Relativity and Space*. J. G. Kudeena. XVI, Oct. 1923, 383-384.
- Stenguist, John L. *Baltimore Age Calculator*. XVII, Oct. 1924, 375.
- Stevens, Lou Bell and James H. Van Sickle. *The Pilot Arithmetic*. Book One. E. C. Hinkle. XVII, Dec. 1924, 500-501.
- Stokes, C. N. See Smith, David Eugene and also Schorling, Raleigh.
- Stone, Charles A. See Waples, Douglas.
- Stone, Cliff W. *Standardized Reasoning Tests in Arithmetic and How to Utilize Them*. XV, Oct. 1922, 377.
- Stone, John C. *Junior High-School Mathematics*, Book III. XIV, March 1921, 159.
- and Howard F. Hart. *Elementary Algebra*. XVII, Oct. 1924, 374.
- Strader, William W. and Laurence D. Rhoads. *Plane Geometry*. H. C. Christofferson, XXI, Jan. 1928, 56-57.
- Stuebaker. See Knight.
- Sullivan, J. W. N. *History of Mathematics in Europe*. Sophia R. Refior. XVIII, Nov. 1925, 441-442.
- Sumner, S. Clayton. *Supervised Study in Mathematics and Science*. John R. Clark. XVII, Feb. 1924, 123-125.
- Swenson, John A. *High School Mathematics: A First Course*. Mary S. Taylor. XVI, May 1923, 315-316.
- Taber, C. W. and Ruth A. Wardall. *Economics of the Family*. XVII, Feb. 1924, 126-127.
- Taylor, E. H. *Arithmetic for Teacher-Training Classes*. XX, April 1927, 240-241.
- Taylor, Mary S. See Roantree, William F. and also Swenson, John A.
- Terman, Lewis M. See Kelley, Truman L.
- Thorndike, Edward L. *New Methods in Arithmetic*. Edgar C. Hinkle. XIV, Oct. 1921, 352-354.

- Thurstone, L. L. *Thurstone Vocational Guidance Tests; Arithmetic, Algebra, Geometry*. Arthur S. Otis. XV, Dec. 1922, 506-507.
- Touton, Frank Charles. *Solving Geometric Originals*. Winona M. Perry. XVIII, May 1925, 303-305.
- See Hawkes, Herbert E.
- Townsend, E. J. *Functions of a Real Variable*. H. A. DoBell. XXII, March 1929, 182.
- Vaughan, Anna. See Sheppard, Mel.
- Van Sickle, James H. See Marsh, Harry B. and also Stevens, Lou Belle.
- Vosburgh, Gentleman, and Hassler. *Junior High School Mathematics, Revised Edition*. XVII, Dec. 1924, 502-503.
- Waples, Douglas, and Charles A. Stone. *A Teaching Unit: A Type Study*. Jas. H. Zant. XXII, Nov. 1929, 430-431.
- Wardall, Ruth A. See Taber, C. W.
- Weeks, Raymond. *Boys' Own Arithmetic*. G. W. Marque Maier. XVIII, May 1925, 300-301.
- Weaver, James H. See Carmichael, R. D.
- Weiner, M. See Leventhal, Murray J.
- Werremeyer, D. W. *Cumulative Mathematics*. George P. Kerr. XIX, Jan. 1926, 53-56.
- Whittaker, E. T. and George Robinson. *A Short Course in Interpolation. The Calculus of Observations*. George H. Conwell. XVII, Oct. 1924, 375-376.
- Wieleitner, Heinrich. *Der Gegenstand der Mathematik im Lichte Ihrer Entwicklung*. David Eugene Smith. XIX, Jan. 1926, 58.
- *Mathematische Quellen-bücher I Rechnen und Algebra; II Geometrie und Trigonometrie; III Analytische und Synthetische Geometrie*. David Eugene Smith. XXII, Jan. 1929, 59-61.
- Williard, E. L. *Fundamental Drills, Books I, II, III, and IV*. XIV, Feb. 1921, 105.
- Wilson, Guy M. *What Arithmetic Shall We Teach?* Josephine Haley. XX, April 1927, 238-239.
- Winger, R. M. *Introduction to Projective Geometry*. Charles W. Evans. XVI, Oct. 1923, 383.
- Withers, John. See Drushel, J. Andrew.
- Wolff, Georg. *Mathematik und Malerei*. David Eugene Smith. XVIII, Dec. 1925, 505-506.
- Woods, F. S. *Advanced Calculus*. Gordon R. Mirick. XIX, April 1926, 250.
- and Frederick H. B. Bailey. *Elementary Calculus*. Joseph Seidlin. XXII, April 1929, 242.
- Young, John W. and Albert J. Schwartz. *Plane Geometry*. XVI, Dec. 1923, 504-507.
- Zant, Jas. H. See Schorling, Raleigh; Shibli, J.; and Waples, Douglas.