THE MATHEMATICAL ASSOCIATION OF AMERICA

THE ANNUAL MEETING OF THE ROCKY MOUNTAIN SECTION

The twenty-eighth annual meeting of the Rocky Mountain Section of the Mathematical Association of America was held at Colorado State College of Education, Greeley, Colorado, on April 14 and 15, 1944. There were three sessions, the final session being a joint meeting with the Mathematics Section of the Eastern Division of the Colorado Education Association. Professor A. E. Mallory, Chairman of the Section, presided at each of the sessions.

The attendance was thirty-two, including the following twelve members of the Association: C. F. Barr, A. G. Clark, J. C. Fitterer, Leota C. Hayward, A. J. Kempner, Claribel Kendall, W. J. LeVeque, A. J. Lewis, A. E. Mallory, Greta Neubauer, A. W. Recht, E. C. Varnum.

At the business meeting the following officers were elected for the coming year: Chairman, Jack Britton, University of Colorado; Vice-Chairman, C. F. Barr, University of Wyoming.

The following papers were presented:

1. *Mathematics in the A. S. T. P.*, by Professor A. G. Clark, Colorado State College of Agriculture and Mechanic Arts.

2. *Vibrating membranes*, by August Newlander, University of Denver, introduced by the Secretary.

It was pointed out that the vibrations of a circular membrane are in many respects similar to the vibrations of a string. The displacement of a particular point of the membrane can be obtained by solving a partial differential equation of the second order. The solution of the differential equation can be expressed by means of an infinite series involving sines, cosines, and Bessel functions. The determination of certain constants dependent upon the boundary conditions involves the use of Fourier series and the Fourier-Bessel expansion of a function. After all constants have been determined, the result is an expression giving the displacement of any point of the membrane in terms of its position and the time after releasing the membrane from rest.

3. *Reduction of inverse tangents to integral arguments*, by Professor E. C. Varnum, University of Wyoming.

By a study of the operation $(a-b)/(1-ab)$ the speaker developed formulas by which inverse tangents of rational arguments may be reduced to those having integral arguments, the latter having been well tabulated in recent projects.

4. *A new definition of the Gamma function*, by Mrs. Margaret Matchett, University of Denver, introduced by the Secretary.

The speaker remarked that the Gamma function is uniquely defined by its

functional equation and the condition of logarithmic convexity. It was also stated that this definition yields an explicit expression for the Gamma function as an infinite product.

5. *Suggested changes in the content of high school mathematics*, by Ruth Hoffman, Denver Public Schools, introduced by the Secretary.

6. *Trends in grade placement of arithmetic fundamentals*, by L. B. Garner, Cameron School, Greeley, Colorado, introduced by Professor Mallory.

7. *I know better than I teach, now*, by Professor A. W. Recht, University of Denver.

In this address it was suggested that every teacher constantly fails to reach standards of teaching which he knows to be better. Twelve points for good teaching were submitted with the suggestion that they be used for periodic check-ups. One of these points, that of keeping the student informed of his standing day by day, was explained in detail. A method was shown by which the daily running averages of students in a whole class could be written down in two or three minutes from one setting of a slide rule.

8. *Early computation with Hindoo-Arabic numbers*, by Professor A. E. Mallory, Colorado State College of Education.

<div style="text-align: right">A. J. LEWIS, Secretary</div>

CALENDAR OF FUTURE MEETINGS

Twenty-Eighth Summer Meeting, Montreal, Canada, June 23–25, 1945.

The following is a list of the Sections of the Association with dates of future meetings so far as they have been reported to the Secretary.

ALLEGHENY MOUNTAIN

ILLINOIS

INDIANA

IOWA

KANSAS

KENTUCKY

LOUISIANA-MISSISSIPPI

MARYLAND-DISTRICT OF COLUMBIA-VIRGINIA, Washington, D. C., May, 1945

METROPOLITAN NEW YORK, Brooklyn, April 21, 1945

MICHIGAN

MINNESOTA

MISSOURI

NEBRASKA

NORTHERN CALIFORNIA, Berkeley, January 26, 1946

OHIO, Columbus, April 5, 1945

OKLAHOMA

PHILADELPHIA, Philadelphia, December 1, 1945

ROCKY MOUNTAIN

SOUTHEASTERN

SOUTHERN CALIFORNIA, Los Angeles

SOUTHWESTERN

TEXAS

UPPER NEW YORK STATE

WISCONSIN, Milwaukee, May, 1945