26. *On symmetric neighborhood systems in strongly paracompact, completely paracompact, and strongly metrizable spaces*, by Margaret R. Wiscamb, Texas Christian University.

A collection of sets $\{U(p) | p \in R\}$ is said to be symmetric if $q \in U(p)$ implies $p \in U(q)$. Using this concept, we can replace star finiteness with much weaker conditions, such as point finiteness or point countability in the definitions of strongly paracompact, completely paracompact and strongly metrizable spaces. Moreover, using this property we can relax the requirement that the refinement (resp. basis) be open in these spaces.

27. *The process for manual extraction of N-th roots of real numbers*, by John Reynolds, Texas Christian University.

A process for manual extraction of principal Nth roots of real numbers has been found. The root will be a real number and therefore can be expressed as a polynomial-like function of its base. The radicand is a polynomial expansion of the root and therefore can be operated on by a division-like process to obtain the root.

28. *Cylindrical surfaces*, by R. S. Underwood, Texas Technological College.

An equation $f=0$ in n variables has a degenerate locus on a plane, facilitating its solution simultaneously with a second equation, if functions X and Y exist such that $f=f(X, Y)$. The existence or not of these functions can be determined when nonparallel tangent hyperplanes $F=0$ and $G=0$ are obtainable by the method used in 3-space. Then the plotting rule $X=F$, $Y=G$ in effect "stands on end" the "cylindrical surface," if such it is, and yields incidental solutions of Diophantine equations. Analysis shows the validity of this intuitive approach.

B. T. GOLDBECK, *Secretary*

MAY MEETING OF THE INDIANA SECTION

The Indiana Section of the MAA met on Saturday, May 1, 1965, at Indiana University, Bloomington, in joint session with the Indiana Council of Teachers of Mathematics. Approximately 250 persons attended, of whom 100 were members of the Association. Chairman R. E. Dowds of Butler University presided. The structure of the meeting was that of a symposium on Algebra and Linear Algebra. Discussion was centered around the following three hour lectures:

1. *From Descartes to Hilbert*, by Donald Ostberg, Indiana University.
2. *Linear Algebra and its Applications to Geometry*, by Ernst Snapper, Dartmouth College.
3. *Commutativity Theorems*, by I. N. Herstein, University of Chicago.

Officers for next year, elected at the afternoon business meeting, are George Springer, Indiana University, Chairman; Norman B. Haaser, University of Notre Dame, Vice-Chairman; and Paul Mielke, Wabash College, Secretary-Treasurer.

Local arrangements for the meeting were in charge of R. J. Troyer, Indiana University. The Indiana Council of Teachers of Mathematics and the University of Indiana shared in its financing.

P. T. MIELKE, *Secretary*

MAY MEETING OF THE METROPOLITAN NEW YORK SECTION

The twenty-fourth annual meeting of the Metropolitan New York Section of the MAA was held on May 1, 1965 at Manhattan College. There were 125 persons present of whom 82 were members of the Association. The following officers were elected: Chairman, Walter Cassidy, St. John's University; Vice-Chairman for Colleges, Meyer Jordan, Brooklyn College; Vice-Chairman for High Schools, Benjamin Bold, Stuyvesant High School; Secretary, Mary Hagen, Pace College; Treasurer, Aaron Shapiro, Midwood

High School. The address of welcome was given by Brother Casimir Stephen, F.S.C. Mr. Aaron Shapiro, Treasurer, presented the Treasurer's Report. The program was as follows:

1. *Calculus in function space*, by Monroe Donsker, New York University.

2. *Planar graphs and the four color problem*, by Oystein Ore, Yale University.

3. *Report of the Chairman of the Contest Committee, and presentation to winners of the Metropolitan New York Section Contest*, by C. T. Salkind, Polytechnic Institute of Brooklyn.

4. *Reports of the Section Governor and of the Director of the Speakers Bureau*, by J. N. Eastham, Queensborough Community College.

5. *Report of the Chairman of the Curriculum Committee*, by S. F. Barber, The City College.

6. *Panel discussion—The place of computing in the curriculum*, by R. W. Hamming, Bell Telephone Laboratories; George Grossman, New York City Board of Education; Demos Eitzer, The City College; Jack Heller, New York University.

ABRAHAM SCHWARTZ, *Chairman*

MAY MEETING OF THE NEBRASKA SECTION

The forty-first annual meeting of the Nebraska Section of the MAA was held on May 1, 1965, at the Nebraska Center for Continuing Education, Lincoln, Nebraska, in conjunction with the seventy-fifth annual meeting of the Nebraska Academy of Sciences. Professor Hubert H. Schneider, Chairman of the Section, presided. There were some 150 persons present at both the morning and afternoon sessions; some 49 members of the Association attended. The morning session was held jointly with the NSF Nebraska Cooperative College Teacher Development Program.

The following officers were elected for 1965–66: Chairman, Professor Edward A. Sharp, Creighton University; Vice-Chairman, Professor H. H. Schneider, University of Nebraska; Secretary-Treasurer, Professor H. M. Cox, University of Nebraska. Professor J. M. Earl was continued as Chairman of the Mathematics Contest Committee; representatives of the Nebraska Section of the MAA, the Nebraska Section of the National Council of Teachers of Mathematics, the Nebraska Actuaries Club, and the Nebraska Academy of Sciences are on the Committee.

Invited lecturers were: Professor George Polya of Stanford University and Professor Raymond L. Wilder of the University of Michigan, President of the Mathematical Association of America.

The following papers were presented:

1. *The Nebraska Mathematics Contest*, by J. R. Bolingbroke and H. M. Cox, University of Nebraska, and J. M. Earl, University of Omaha.

Some 4824 students from 154 high schools enrolled in the Eighth Nebraska (Sixteenth Annual MAA-SA) Mathematics Contest, held March 4, 1965; 988 students wrote both the Seventh and Eighth Contest Examination ($r=0.50$ with median scores of 13 and 13 which actually represent a "gain" of four points when scores are adjusted to the comparative difficulty of the examinations). The *Nebraska Report*, which can be obtained upon request, includes an eight-year summary as well as the 1965 Nebraska Honor Roll, distribution tables, and an item analysis.

2. *Automorphisms of semigroups*, by Paul Dussere, University of Nebraska.

Let G be a finite abelian group. Then a semigroup S is constructed such that the automorphism group of S is isomorphic to G.

3. *Equational classes of commutative semigroups*, by R. J. Schwabauer, University of Nebraska.

Tarski showed for his notion of consequence operation: if S is the set of consequences of a