puter program, introduced by Ramon E. Moore in "range" arithmetic, is a very hopeful step in the right direction. The need for seeking processes that are numerically stable must be emphasized. Finally, some implications of function theoretical concepts were touched upon.

6. *Minimum variance of estimates under stratified sampling*, by Professor W. R. Van Voorhis, Fenn College.

When a population is stratified for purposes of sampling, the variance of the estimated sample mean, x, depends not only upon the allocation of the sample of size n to the several k strata, but also upon the location of x_i, the points of stratification. Necessary and sufficient conditions to yield minimum variance have been established by Dalenius but these conditions do not yield the explicit values of x_i that must be known before an optimum stratification can be made. It is shown that no general proof of the existence of uniqueness is possible. For the case of "proportional" allocation, it is shown that there exists at least one optimal solution for k strata. A method of successive approximations beginning with a first feasible solution is discussed, and examples are given for several well-known distributions.

7. *Mutation view of conics (shadow transformations and primal states)*, by Dr. Beckham Martin, Owens-Illinois Glass Company, Toledo, Ohio.

In the presentation the following salient remarks were made: (A) There had to be a clean break with conventional geometry, which has reached a state of stagnation, before one could ever hope to reach new pinnacles of achievement. (B) Mutation Geometry is the science of intangible change (shadow-transformations). The discussion began with the general conic equation: (1) $Ax^2+Bxy+Cy^2=Dx+Ey+F$. A primal state number P was calculated: (2) $P=2/(\sqrt{B^2+(A-C)^2}+A+C)$ by which (1) was transformed shadow-wise to its primal state: (3) $ax^2+bxy+cy^2=dx+ey+f$ from which the properties of the representative conic may be read off at sight. Example: The eccentricity is given by (4) $e^2=2-(a+c)$

8. *The 1959 mathematical program*, by Professor R. L. Wilson, Ohio Wesleyan University.

A contrast is made between the type of mathematics currently being used in the physical and nonphysical sciences and the type of mathematics so applied a decade or more ago. Implications are drawn for the mathematical education of students in the various fields of specialization. Alternative suggestions for meeting this situation are made.

9. *Composite pattern of primitive Pythagorean triangles formulated by arithmetical progression*, by Mr. R. J. Irwin, Eddie Painton Associates, Inc., Cleveland, Ohio.

The method presented is believed to be easier and quicker to compile than the methods more commonly used. The non-Pythagorean Triangles are eliminated very readily as they follow a rhythmic appearance in these tables. Periodic checks throughout the tables automatically correct preceding calculations. These tables discovered two (probably typographical) errors in existing published tables. The interesting relation of Pythagorean Triangles to prime numbers is also shown.

FOSTER BROOKS, *Secretary*

THE MAY MEETING OF THE ROCKY MOUNTAIN SECTION

The forty-second annual meeting of the Rocky Mountain Section of the Mathematical Association of America was held at Utah State University, Logan, Utah, on Friday afternoon and evening and Saturday forenoon, May 8 and 9, 1959. The meeting was divided into several sessions with Professors N. C. Hunsaker, Joe Elich, J. H. Barrett, and Harvey Fletcher presiding. There were 94 persons registered for the meeting, including 60 members of the Association.

Officers elected at the meeting for 1959–1960 were: Chairman, Colonel J. W. Ault,