

## THE NOVEMBER MEETING IN NORMAN

The four hundred seventy-fifth meeting of the American Mathematical Society, was held at the University of Oklahoma on Friday and Saturday, November 23–24, 1951. There were about 50 registrations including the following 29 members of the Society:

R. V. Andree, Arthur Bernhart, J. C. Brixey, Y. W. Chen, L. A. Colquitt, N. A. Court, G. M. Ewing, Casper Goffman, I. E. Glover, A. A. Grau, E. V. Greer, O. H. Hamilton, J. O. Hassler, W. N. Huff, L. W. Johnson, A. E. Labarre, G. Q. LaFon, H. W. Linscheid, Dora McFarland, B. L. Mackin, W. C. Orthwein, C. J. Pipes, E. H. Rothe, G. W. Smith, R. G. Smith, O. S. Spears, C. E. Springer, E. B. Stouffer, J. W. T. Youngs.

By invitation of the Committee to Select Hour Speakers for Western Sectional Meetings, Professor E. H. Rothe of the University of Michigan delivered an address entitled *Gradient mappings* at 2:00 P.M. on Friday. Dean E. B. Stouffer presided at the session.

Sessions for the presentation of contributed papers were held at 3:30 P.M. on Friday and 10:00 A.M. on Saturday. Presiding officers at these sessions were Professors C. E. Springer and O. H. Hamilton.

The Society was entertained by President and Mrs. Cross of the University of Oklahoma at a tea in their residence on Friday afternoon. That same evening there was a dinner in the Union for the Society and its guests.

The meeting was characterized by a pleasant air of informality, together with active participation in the discussions following the papers by a large percentage of the audience.

The Society is indebted to the Committee on Local Arrangements for a well planned meeting, and for the obvious pains which were taken to look after the physical comfort of the visitors.

### ALGEBRA AND THEORY OF NUMBERS

106. D. W. Dubois: *Partly ordered fields*. Preliminary report.

A commutative field  $K$  is called a *partly ordered field* if a relation " $x$  is positive" (abbreviated " $x > 0$ ") is defined for at least one  $x \in K$  such that if  $a$  and  $b$  are positive, so are  $a + b$ ,  $ab$ , and  $ab^{-1}$ . One defines  $a < 0$ ,  $x > y$ ,  $x < y$  as usual. One shows that every partly ordered field is a partly ordered set containing the rational field in its natural order and that every field of characteristic zero can be partly ordered. The partial order of  $K$  is said to be *Archimedean* if for every  $x \in K$  there is an integer  $n \in K$  with  $n > x$ . Examples are given of both Archimedean and non-Archimedean partly ordered fields which are not simply ordered by the partial orderings. The following results are proved for an arbitrary partly ordered field  $K$ : (1)  $K$  contains a subfield  $D$  already ordered by the partial order of  $K$ , and  $D$  contains every other such subfield.  $D$  con-