

pük makes a fundamental error in proceeding synthetically instead of analytically, and in this matter of terms for relationship we have an example of that fundamental mistake.

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 NOTES.

A REGULAR meeting of the NEW YORK MATHEMATICAL SOCIETY was held Saturday afternoon, April 2, at half-past three o'clock, the president in the chair. The following persons having been duly nominated, and being recommended by the council, were elected to membership: Mr. B. S. Annis, Johns Hopkins University; Professor Samuel Marx Barton, Emory and Henry College; Dr. Maxime Bôcher, Harvard University; Mr. William H. Butts, Pontiac, Michigan; Dr. T. Proctor Hall, Clark University; Professor S. W. Hunton, Mount Allison University; Mr. W. F. King, Ottawa, Canada; Mr. B. M. Roszel, Johns Hopkins University; Dr. Arthur Schultze, New York. The proposed amendment to the Constitution (*Bulletin*, No. 6, p. 142.) was unanimously adopted, and the By-Laws were amended by striking out section 2 of by-law IX., and altering the number of the following section. The following original papers were read: "The cubic-projection and rotation of a tesseract," by Dr. T. Proctor Hall; "On final formulas for the algebraic solution of quartic equations," by Professor Mansfield Merriman.

A *tesseract* is a geometrical figure generated by the motion of a cube in the direction of the common perpendicular to its edges and faces, bearing exactly the same relation to a cube that a cube bears to a square. It is bounded by eight cubes, and has twenty-four faces, thirty-two edges, and sixteen vertices. Dr. Hall presented the Society with a wire model representing the projection of a tesseract into space of three dimensions.

THE Cambridge University Press has in preparation "A treatise on the mathematical theory of elasticity," by A. E. H. Love, fellow of St. John's College, Cambridge. The first volume of the work, which is to be in two volumes, is in press.

MACMILLAN & Co. have nearly ready a work on the "Theory of functions," by Professor Morley of Haverford College, Pa., and Professor Harkness of Bryn Mawr College, Pa.

At the meeting of the *Académie des Sciences* at Paris on