Summary in English

Hans Chr. Hansen, *Number magic with squares* (Danish.) This article was inspired by a problem from the web page of the Danish Association of Mathematics Teachers. It was proposed as an exercise for school pupils learning subtraction. Start with a square and one integer in each corner. Form a smaller square with an integer in each corner by placing the difference of each adjacent pair of integers in the middle of the corresponding side of the original square, and connecting the new quadruple of integers by line segments. Repeat this step. The problem is to discover how many squares have to be drawn before the integers become zero at all four corners.

The author treats the more general problem of a regular polygon by a mixture of theory and numerical experiment. The case of a square is studied in detail. Among the results for this case are that the number of steps to reach a square with zero at all corners is always finite, but can be arbitrarily large.

D. G. Rogers, *Pythagoras framed, cut up Liu Hui* (translated into Norwegian and adapted by Christoph Kirfel.) This is an exposition of some dissection arguments in plane geometry, inspired by an ancient Chinese geometrical tradition. The eminent Chinese mathematician Liu Hui wrote a commentary in 263 on the older mathematical treatise *Jiu Zhang Suan Shu* (Nine Chapters on the Mathematical Art). The author discusses some dissection arguments from this commentary, dealing with formulas for the diameter of the circle inscribed in a right triangle, and extends the arguments.

Audun Holme, *Arabic mathematics 2* (Norwegian.) This is the second of two articles on Arabic mathematics, the first one appeared in the previous issue. The author discusses the lives and work of some important mathematicians from the Islamic world in the period from the tenth century to the Spanish *Reconquista*. They made remarkable contributions to algebra, number theory, geometry, astronomy and the art of numerical calculation. And Nasir al-Din al-Tusi (1201–1274) founded trigonometry. Nasir lived in the turbulent time of the Mongol invasions, and became an adviser to Hulagu Khan.