

Summary in English

Jöran Friberg, *Mathematical cuneiform texts in the Norwegian Schøyen collection*. (Swedish.) The author is a leading scholar of Babylonian and Sumerian mathematical texts. Here he gives examples of cuneiform mathematical clay tablets from the Schøyen collection. Some of the texts are elementary calculation exercises by school pupils. And there are multiplication tables, tables of squares and of reciprocals and so forth, in the sexagesimal system used in Babylonia. But more advanced problems and methods of solution are also found in these mathematical texts. There is a geometrical problem where the three-dimensional Pythagorean rule came into play, long before Pythagoras lived. And there is a calculation of the weight of a regular icosahedron made from copper plate of a specified thickness.

Claus Jensen, *Perspective boxes and mathematics*. (Danish.) A perspective box is a wooden box with a scene painted on some of the interior sides using the laws of perspective. Light is admitted through an aperture, and the scene is perused through a peephole. To obtain a lifelike view through the peep-

hole, it is necessary to combine several central projections onto different projection planes on the interior sides of the box. From the period of enthusiasm for perspective boxes in the late seventeenth century, only six boxes have survived. The author describes these six, and gives a more detailed analysis of the perspective box made by Samuel van Hoogstraten, which is today in the National Gallery in London.

Kent Holing, *A quartic equation and its Galois group*. (Norwegian.) The author discusses the Galois group of the quartic equation related to the well known ladder box problem. In the special case of the square box problem a complete analysis of the Galois group is given, using elementary results from number theory. A complete analysis of the Galois group in the general case is not available. However, in the general case all possible Galois groups are achievable, with one exception. It is proven that \mathbb{Z}_4 is never achievable. Several examples are hard to find such as A_4 . The examples of A_4 are constructed using the theory of elliptic curves. Also, several examples producing the trivial group are given.