

Summary in English

Ove Juul Munch, *Tschebyscheff polynomier i den komplekse plan* (Danish)

Recalling that the Chebyshev polynomials $T_n(x) = x^n + \dots$ are the real polynomials with leading coefficient 1 with minimal supnorm on the interval $[-1, 1]$. The author addresses the question of finding analogues in the complex plane, with the same property on ellipses. For that purpose the author defines for each interval I a polynomial $\mathcal{T}^I(z)$ and proves a striking inequality.

Ulf Persson, *The Taxicab number 1729* (English)

Using the standard way of showing that a cubic surface is rational, an explicit parametrization of the solutions to the diophantine equation $x^3 + y^3 = z^3 + w^3$ is effected, made notorious by Hardy's visit to Ramanujam on his sick-bed.

Aksel Bertelsen, *Ruffinis umulighetsbeviser og Ikosahederet* (Danish)

Ruffini published proofs of the impossibility of solving the general equation of degree five in radicals, before either Abel or Galois were born, but the proofs were incomplete. In this article ideas from his version from 1799 are presented in which he inspired by Lagrange uses symmetries and hence group theoretic concepts non-trivially before those were formally identified, with the hope that those would be accessible to curious high-school students.

T. Steihaug and D.G. Rogers, *Approximating cube roots of integers, after Heron's Metrica III.20* (English)

The article discusses at length Heron's numerical method to find good approximations of the cube roots of numbers

(N), given their floors and ceilings (i.e. $m, m+1$ such that $m^3 \leq N \leq (m+1)^3$). The formula Heron came up with is compared with others, and the analogous results for square roots are derived.

Christer Kiselman, *Language choice in scientific writing: The case of mathematics at Uppsala University and a Nordic Journal* (English)

For the first few centuries after its founding in 1477 all lectures and dissertations at Uppsala University were of course in Latin as all over Europe. Things changed drastically during the century 1852-1953 when the transition from Latin to Swedish was completed, and then as activities became less regional French, German and finally English came more and more into use. In the article this process is illustrated by the language choices made in doctoral theses in mathematics and in a Nordic journal.

Christer Kiselman, *Werner Fenchel, a pioneer in convexity theory and a migrant scientist* (English)

Wener Fenchel was a pioneer in introducing duality into convexity theory. He got his Ph.D. in Berlin but was forced to leave Germany, settled in Denmark but eventually he had to leave for Sweden, where he spent the last two years of the war. The article is based on a private letter in which he sketched the historical development of the subject starting with the Legendre transformation.

Ulf Persson, *p-adic integers* (English)

This is an introduction to p -adic integers using the problem of long division as a motivation. Fractions as periodic expansions are discussed, as well the process of taking square roots. Finally a connection between 2-adic topology and the Cantor set is presented.