On the reduced length of a polynomial with complex or real coefficients.

Andrzej Schinzel
Institute of Mathematics, Polish Academy of Sciences

The length $L(P)$ of a polynomial P in $\boldsymbol{C}[x]$ is the sum of the absolute values of its coefficients. The reduced length $l(P)$ of P is defined by $l(P) = \inf L(PG)$, where G runs through all monic polynomials in $\boldsymbol{C}[x]$. The main problem is how to compute $l(P)$ for a given P. This problem is much easier for polynomials P in $\boldsymbol{R}[x]$. Several theorems will be given concerning $l(P)$ for P in $\boldsymbol{C}[x]$ or in $\boldsymbol{R}[x]$.