On a problem of Fejes Toth

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Let P be any convex n-gon in the plane with sides $A_j, j = 1, \ldots, n$ of lengths a_j. Denote by b_j the length of the longest chord parallel to the side A_j. Fejes Tóth conjectured that $\sum_{j=1}^{n} \frac{a_j}{b_j} \geq 3$, with equality only for a snub triangle obtained by cutting off three congruent triangles from the corners of a triangle. This question appears as B7 in the *Unsolved Problems in Geometry* by H. T. Croft, K. J. Falconer and R. K. Guy. We will present F. Nazarov's proof of Tóth's inequality and discuss its higher-dimensional analogues.