The main result of this paper is the construction of a set P in the Euclidean space E_d with no less than $(1.15)^d$ elements, such that all angles determined by the triplets in P are acute, thus settling a long standing conjecture. For their elegant proof, the authors use a combination of geometry and probability theory. Some related results are established, and a number of interesting open questions is presented to the reader.

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52A40 Geometric inequalities, etc. (convex geometry)

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