

**ZMATH 2016b.00582**

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**The problem with square pegs and Pólya's lesson on how to solve it.**

Math. Sch. (Leicester) 40, No. 3, 16-19 (2011).

From the text: This is the fourth in a series of articles prompted by thoughts about what proportion of the area of a figure is taken up by a common shape drawn inside it. Each article has made use of mathematics available to high school pupils in their middle to senior years. The mathematics associated with inscribing squares in polygons and sectors is equally accessible. It is inspired by one of the exercises in heuristics set by Georg Pólya (1887–1985). For the previous Part see [the author, *ibid* 40, No. 2, 12–15 (2011; ME 2016b.00574)].

*Classification:* G40 G60

*Keywords:* plane geometry; triangles; squares; area; ratio; proportion; trigonometry; regular polygons; Pólya; optimization; extreme value problems