

N11: Plastic Number

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1 Introduction

The Plastic number is known as the Plastic constant or Plastic ratio.

The value of the Plastic number is

$$\rho = \sqrt[3]{\frac{9 + \sqrt{69}}{18}} + \sqrt[3]{\frac{9 - \sqrt{69}}{18}} \quad (1)$$

Its decimal representation begin with 1.32471.[1]

2 Uses

It can be a way of partitioning a square into three rectangles.

A Rectangle of aspect ratio ρ^2 can be used for dissections of a square into similar rectangles [1]



Figure 1: Three partitions of a square into similar rectangles

References

- [1] *Plastic number.* (2019, June 02). Retrieved from https://en.wikipedia.org/wiki/Plastic_number.