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

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

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

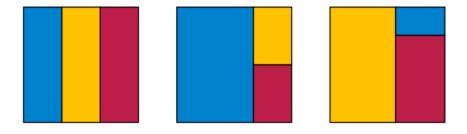


Figure 1: Three partitions of a square into similar rectangles

References

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