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Golden Puzzles

1 Nine triangles

We take nine congruent triangles (Fig. 1).

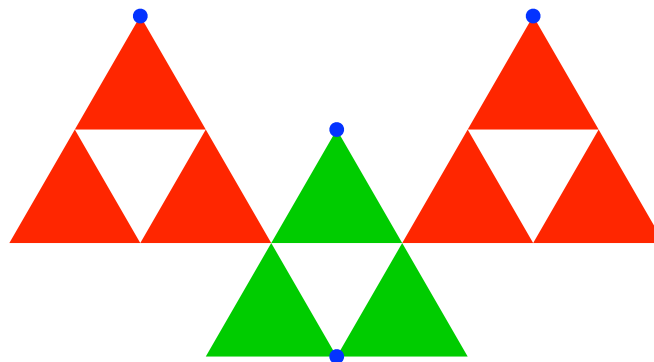


Fig. 1: The nine triangles

Now we rotate the red triangles until the upper vertices meet each other (Fig. 2).

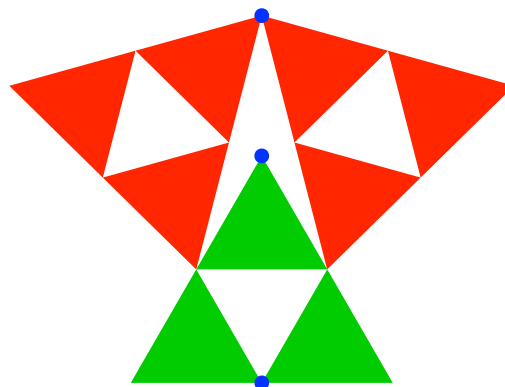


Fig. 2: Where is the golden ratio?

The segments between the three blue points are in the golden ratio.

2 Three hexagons

We divide three regular hexagons into congruent halves (Fig. 3).

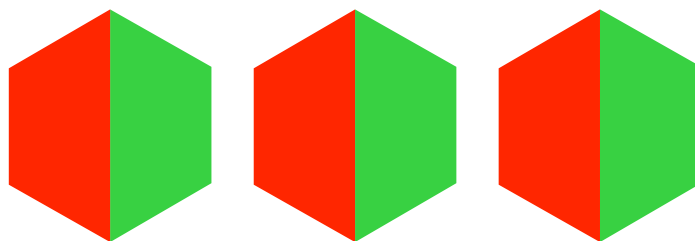


Fig. 3: Half hexagons

Now we rearrange the parts (Fig. 4).

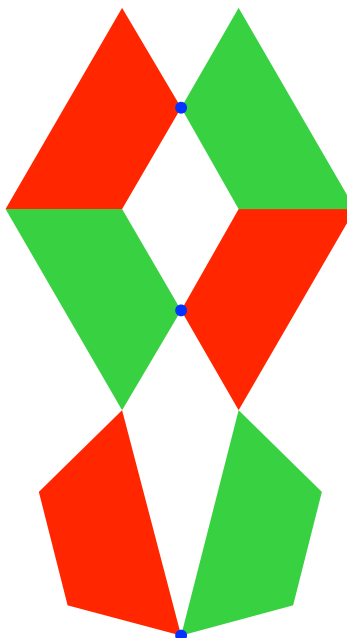


Fig. 4: Golden ratio

The segments between the three blue points are in the golden ratio.

Acknowledgment

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