

Hans Walser, [20060409b]

Goldene Spiralen

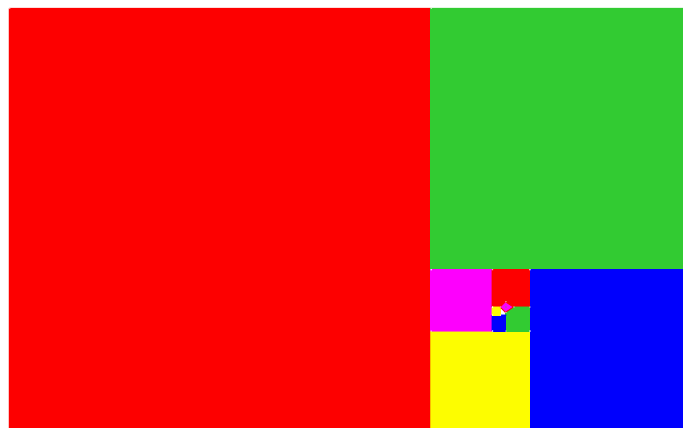
Anregung: J. N.

1 Folge von Quadraten

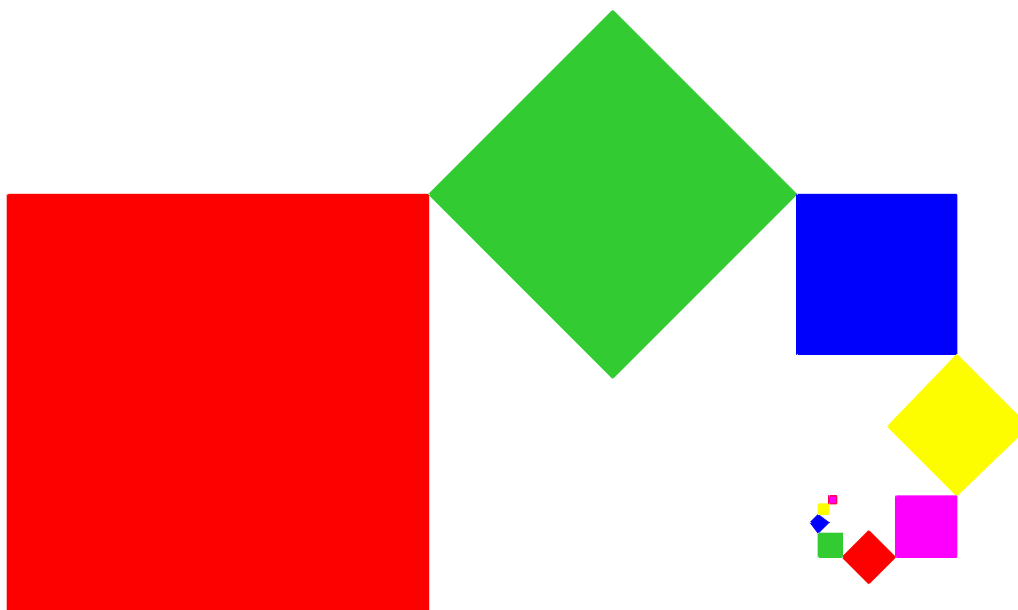
Aufeinander folgende Quadrate einer unendliche Folge von Quadraten, deren Seitenlängen im Verhältnis des Goldenen Schnittes abnehmen, werden an Ecken gelenkig verbunden. Der relative Verdrehungswinkel zwischen zwei aufeinander folgenden Quadraten ist konstant.

1.1 Erstes Beispiel

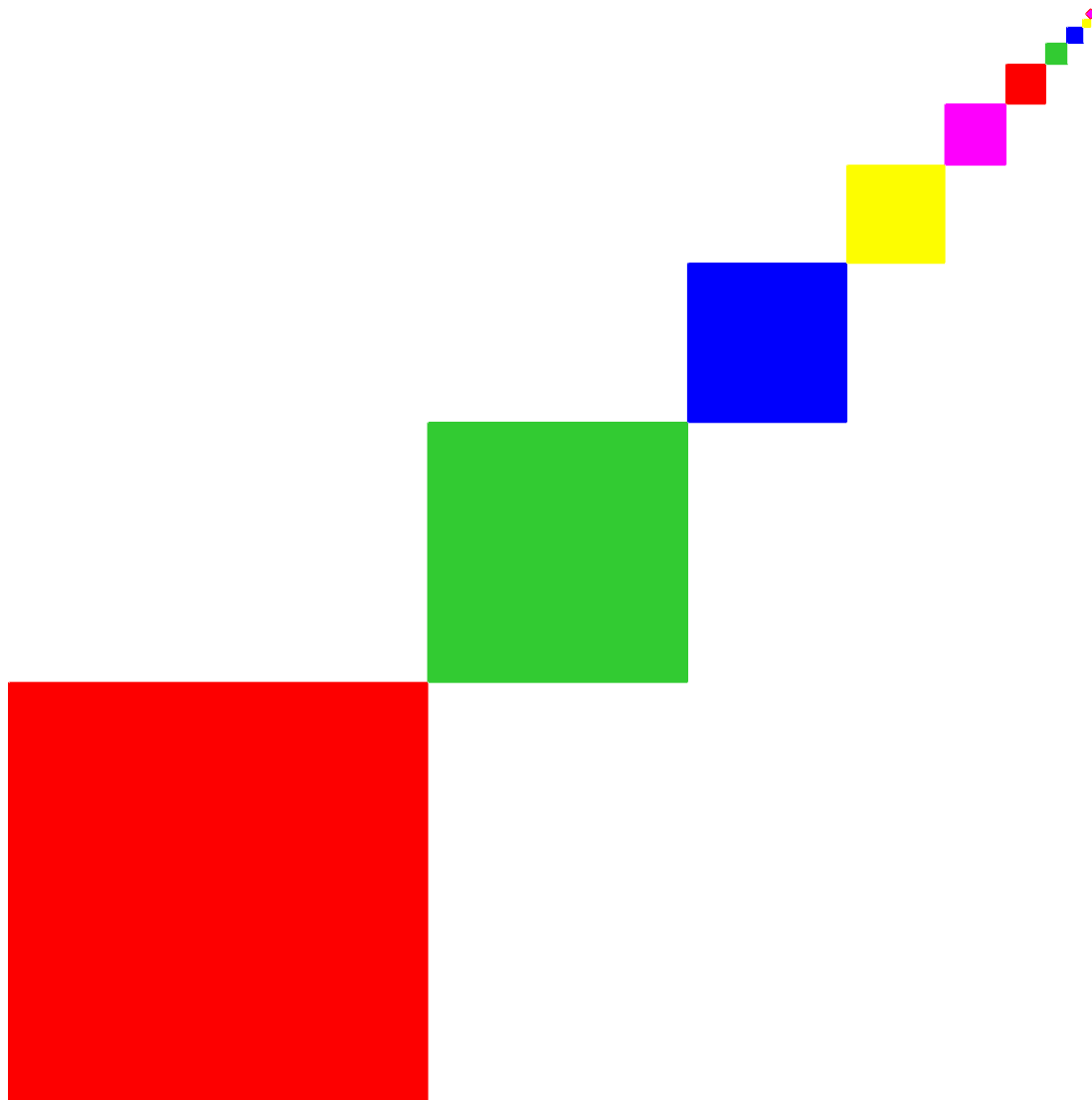
Je gegenüberliegende Eckpunkte werden gelenkig verbunden. Die Figur zeigt Stationen in Schritten von 45° . Für 0° erhalten wir das Goldene Rechteck im Querformat, für 180° das Goldene Rechteck im Hochformat.



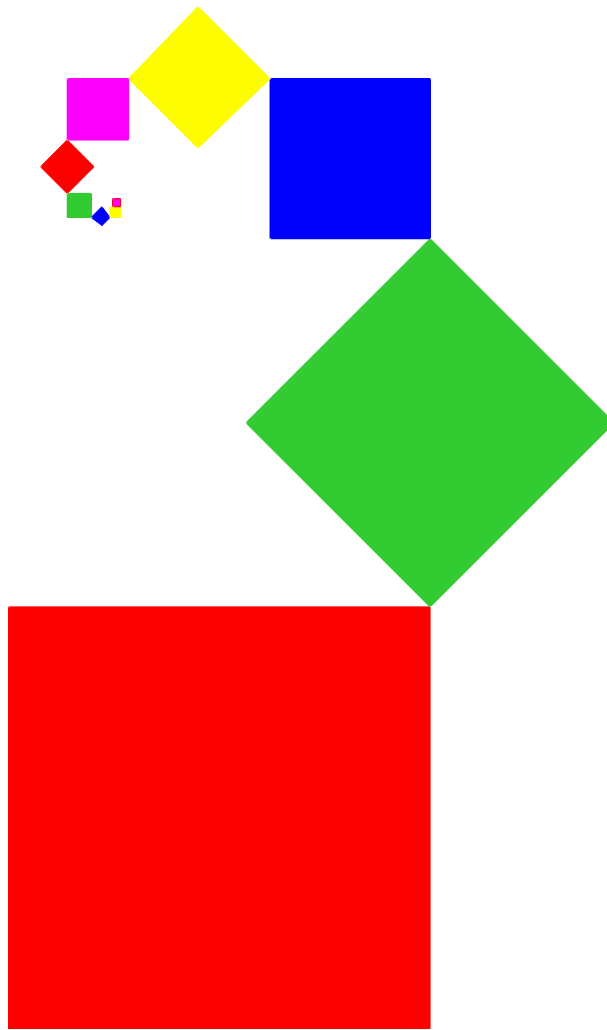
0°



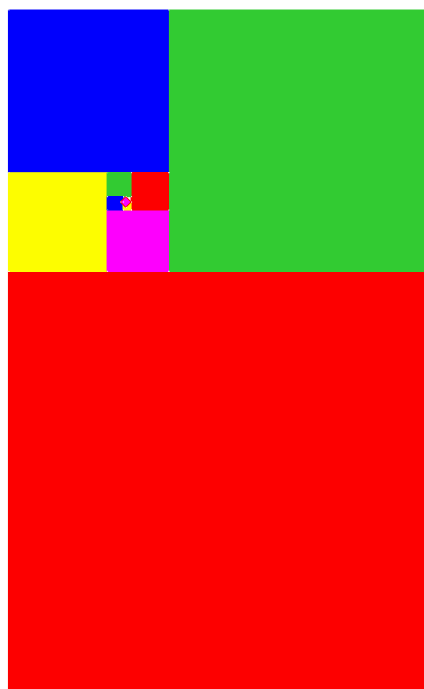
45°



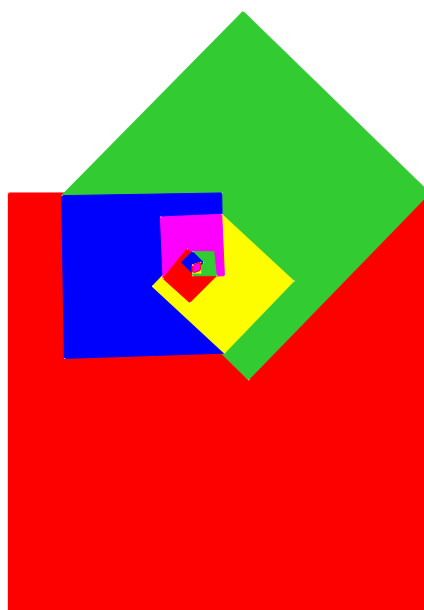
90°



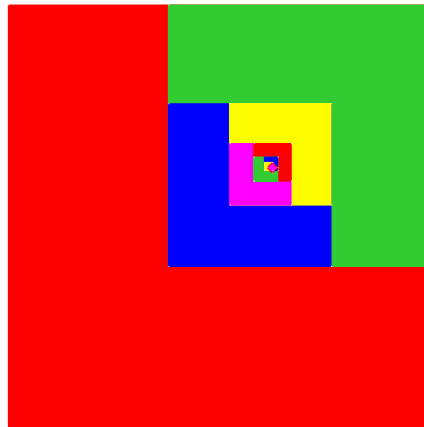
135°



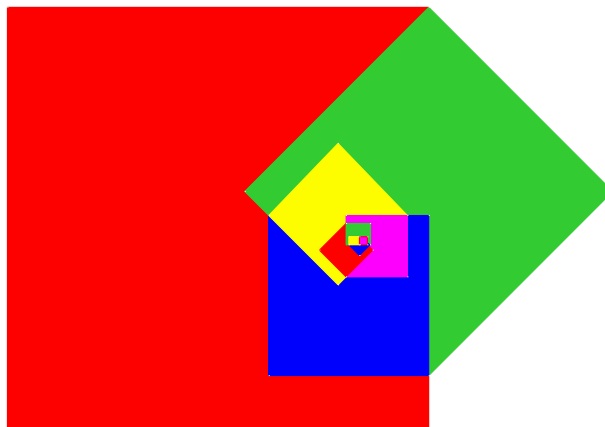
180°



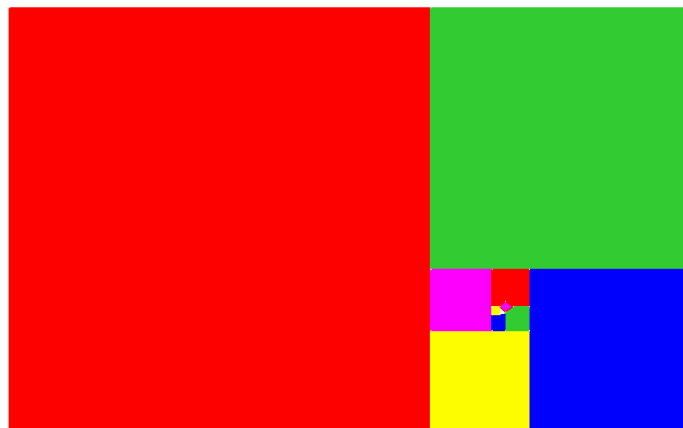
225°



270°



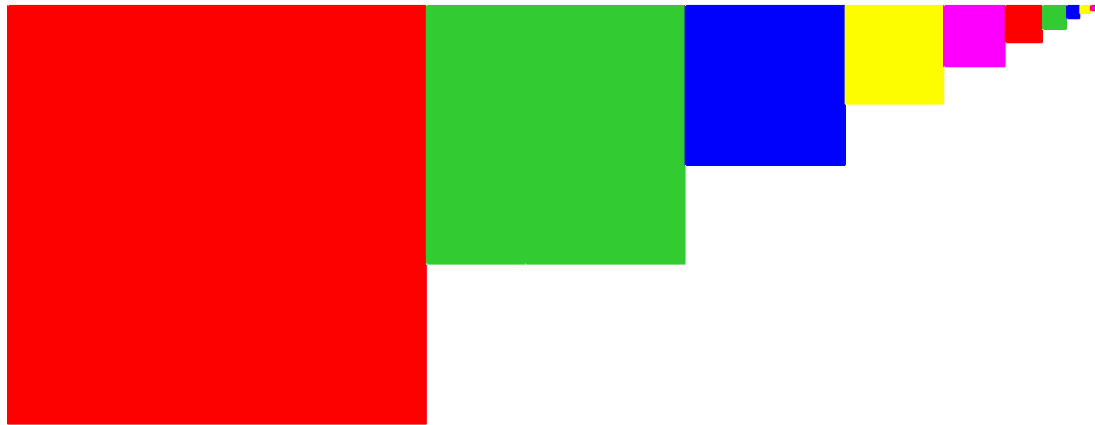
315°



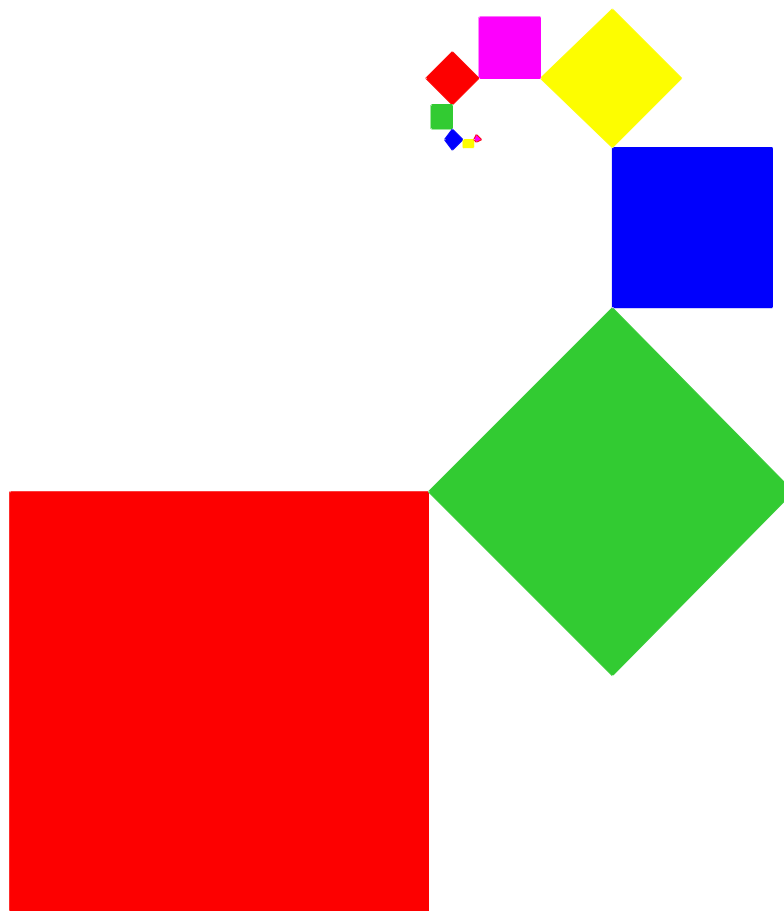
360°

1.2 Zweites Beispiel

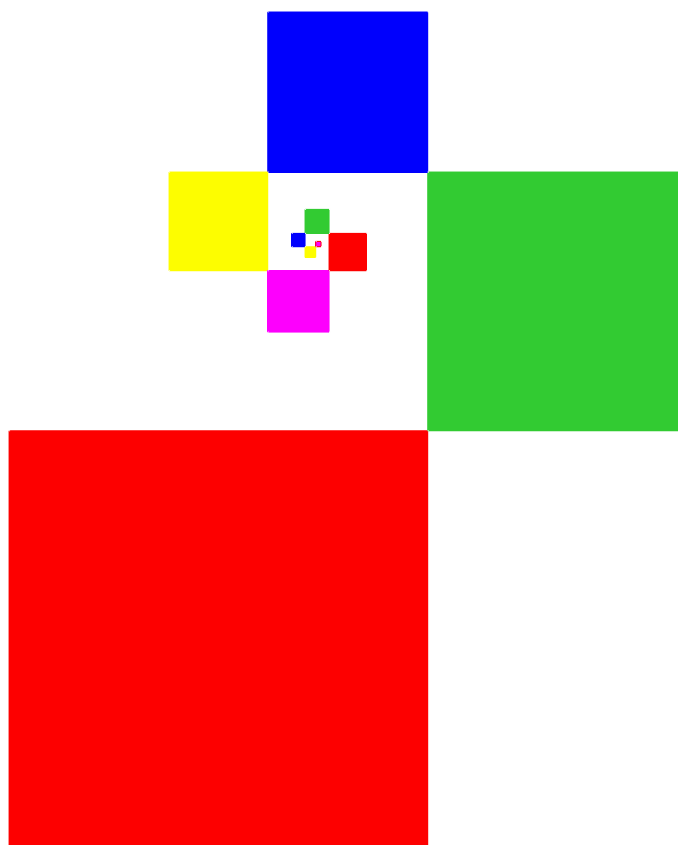
Jeweils benachbarte Eckpunkte eines Quadrates werden mit den Nachbarquadraten gelenkig verbunden. Die Figur zeigt Stationen in Schritten von 45° .



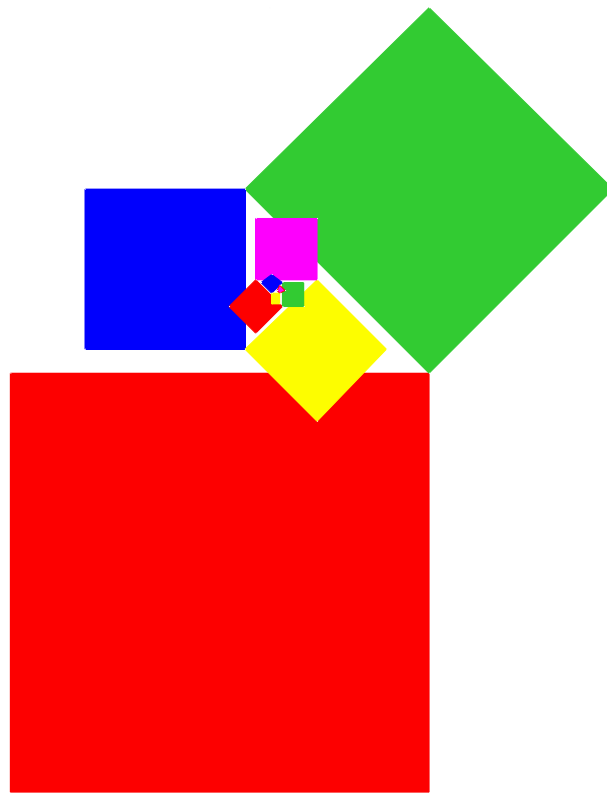
0°



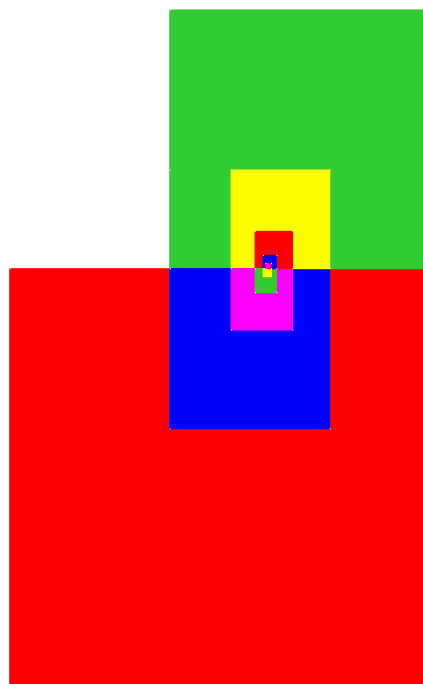
45°



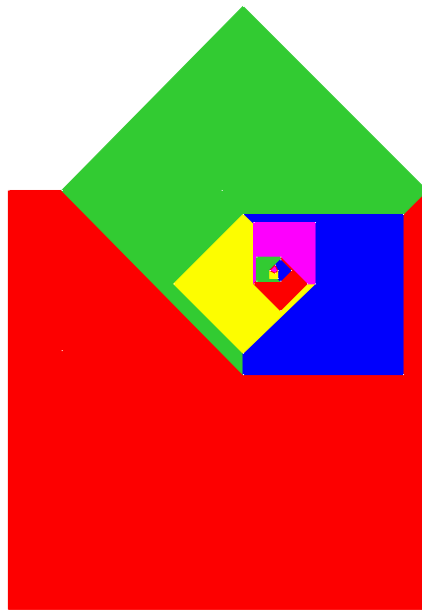
90°



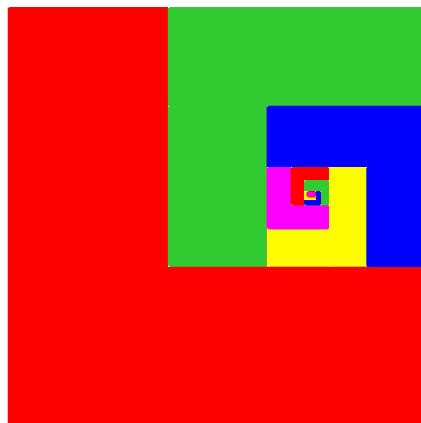
135°



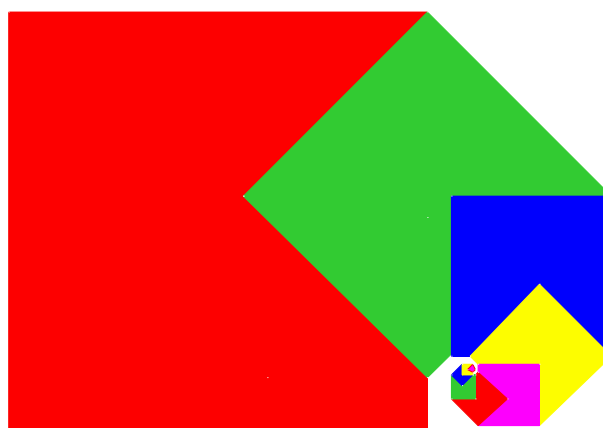
180°



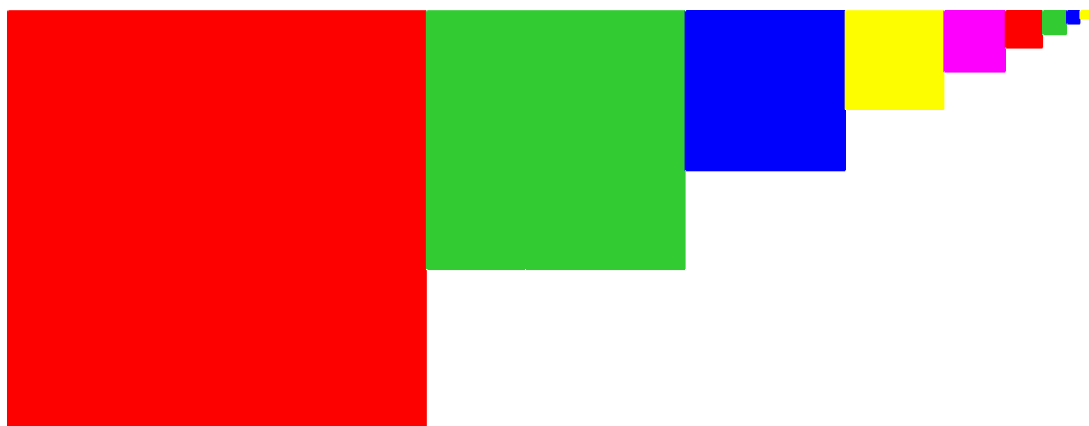
225°



270°

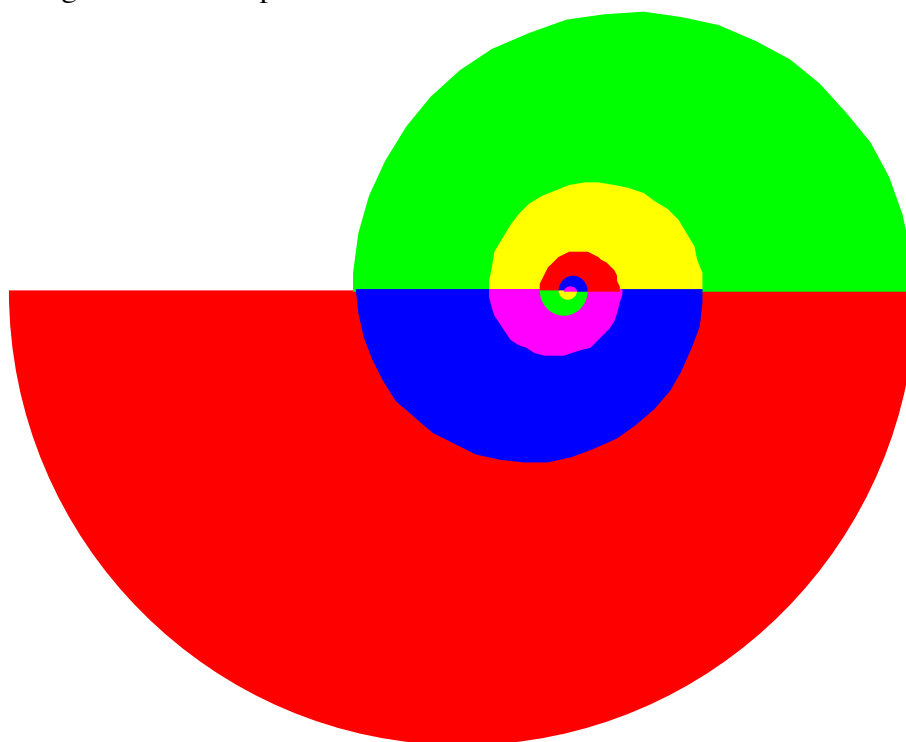


315°



360°

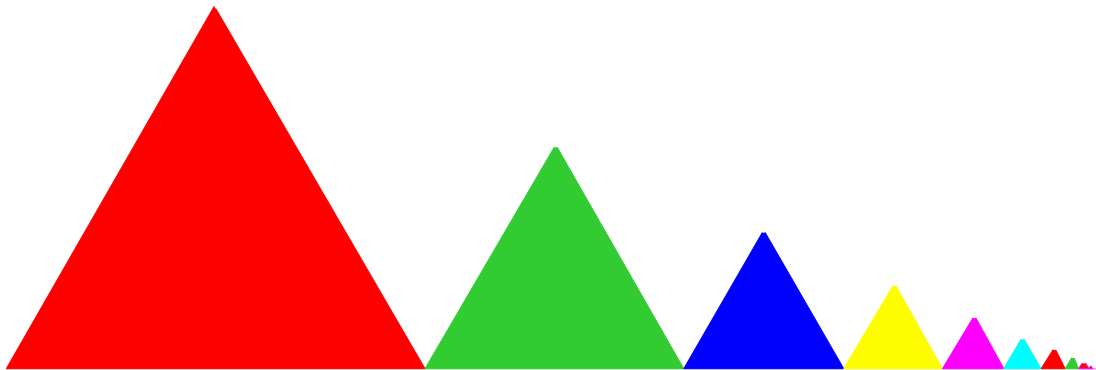
Das zu 180° gehörende Beispiel lässt sich auch mit Halbkreisen darstellen:



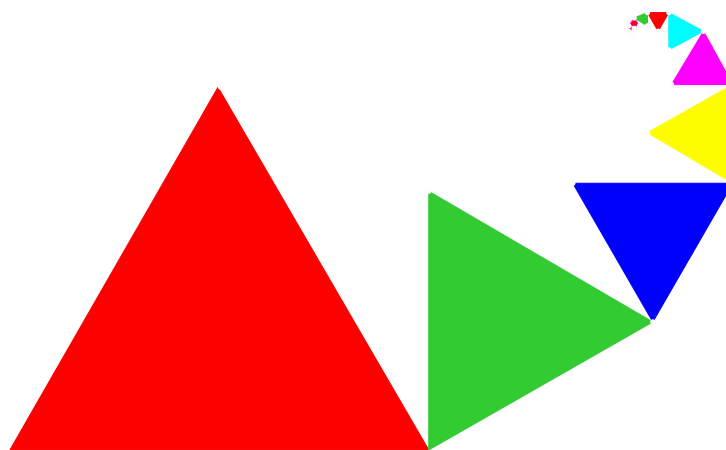
Spirale mit Halbkreisen

2 Folge mit Dreiecken

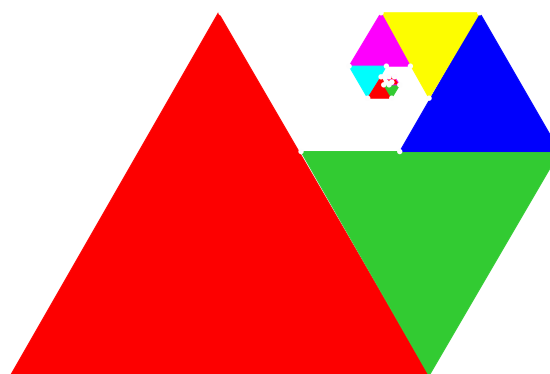
Wir arbeiten nun mit gleichseitigen Dreiecken. Es werden Stationen in Schritten von 30° gezeigt.



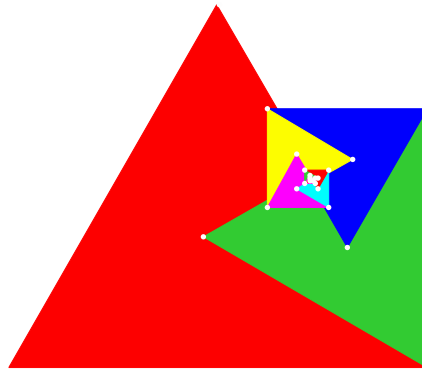
0°



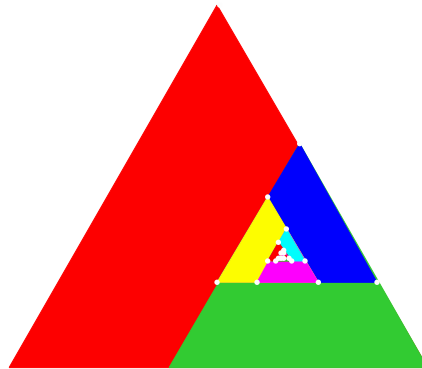
30°



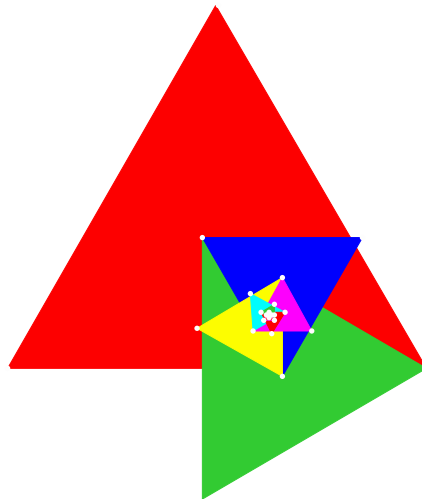
60°



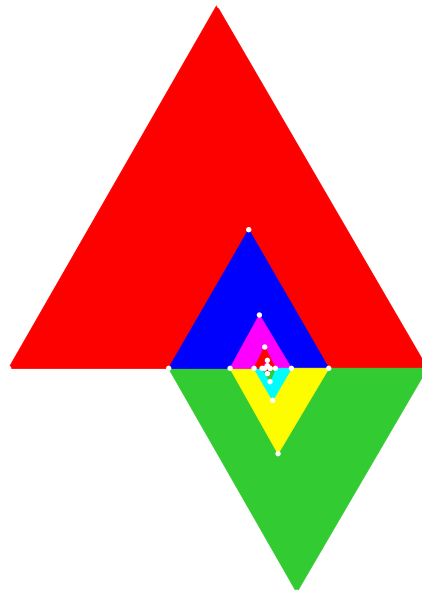
90°



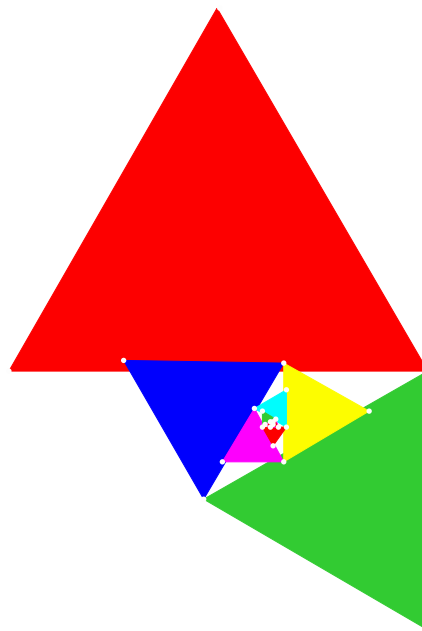
120°



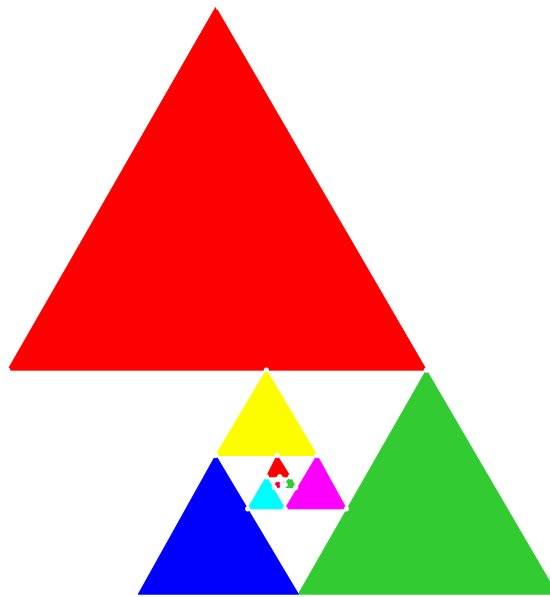
150°



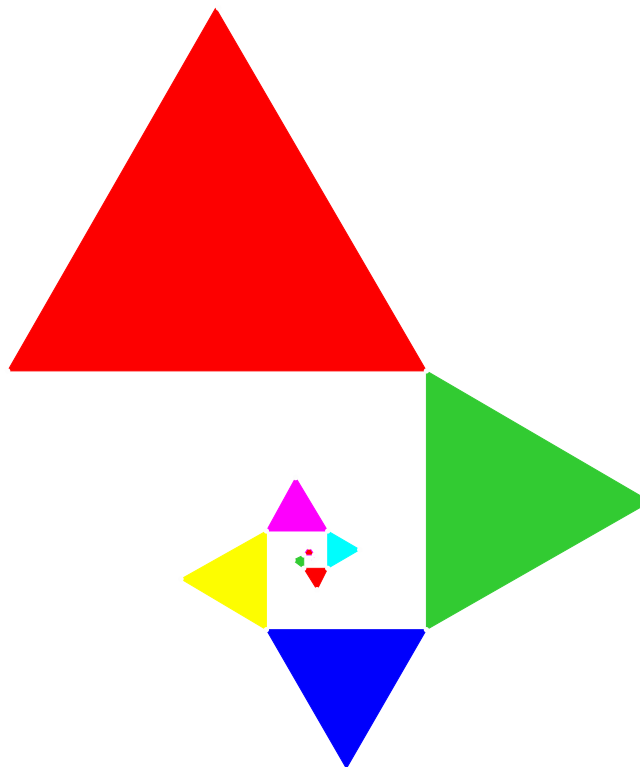
180°



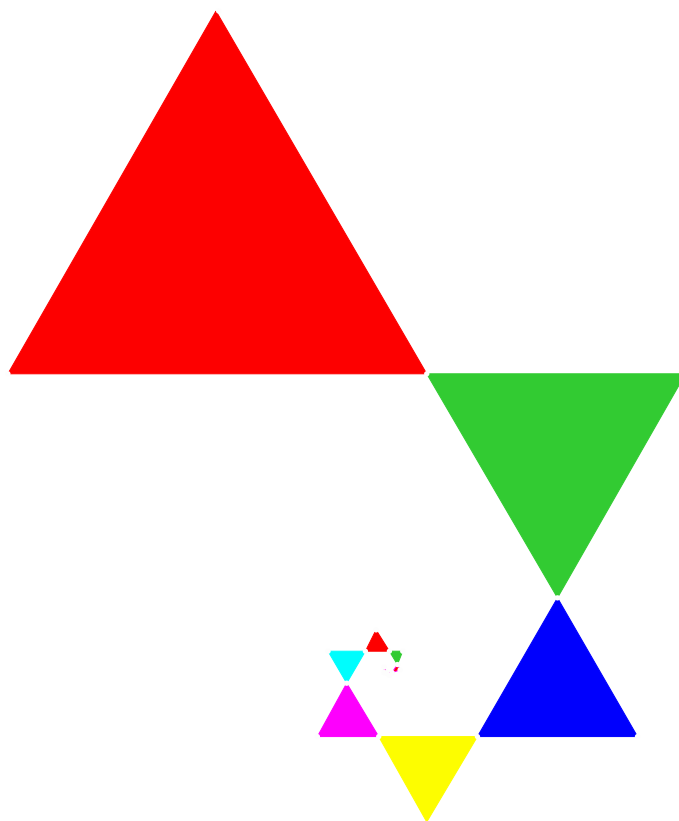
210°



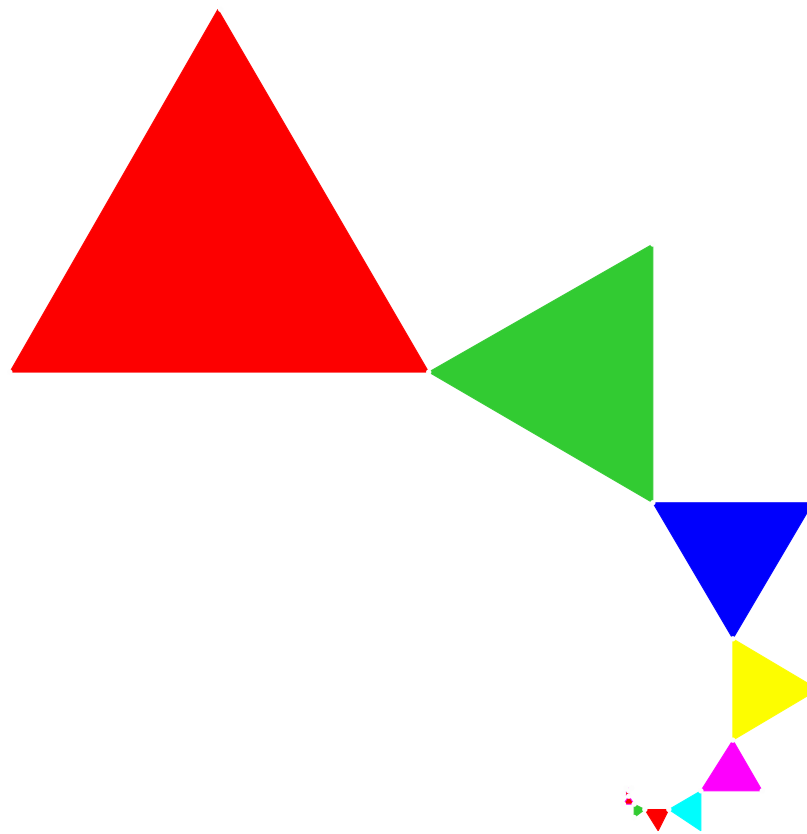
240°



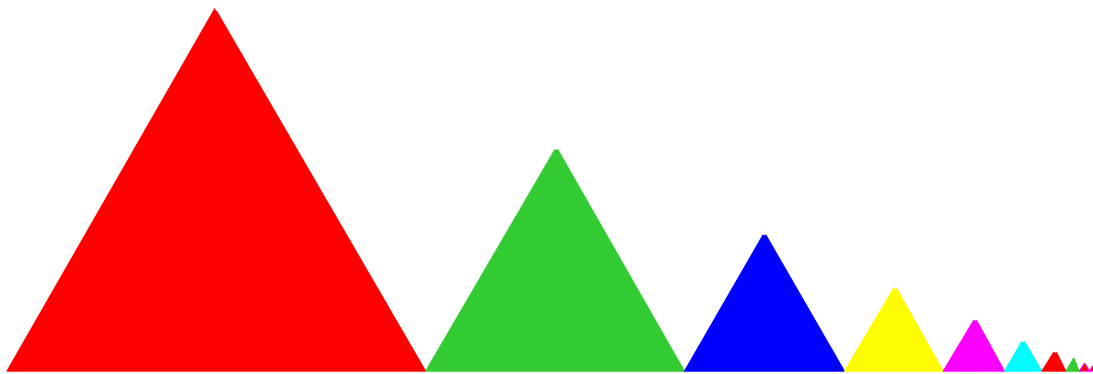
270°



300°



330°



360°