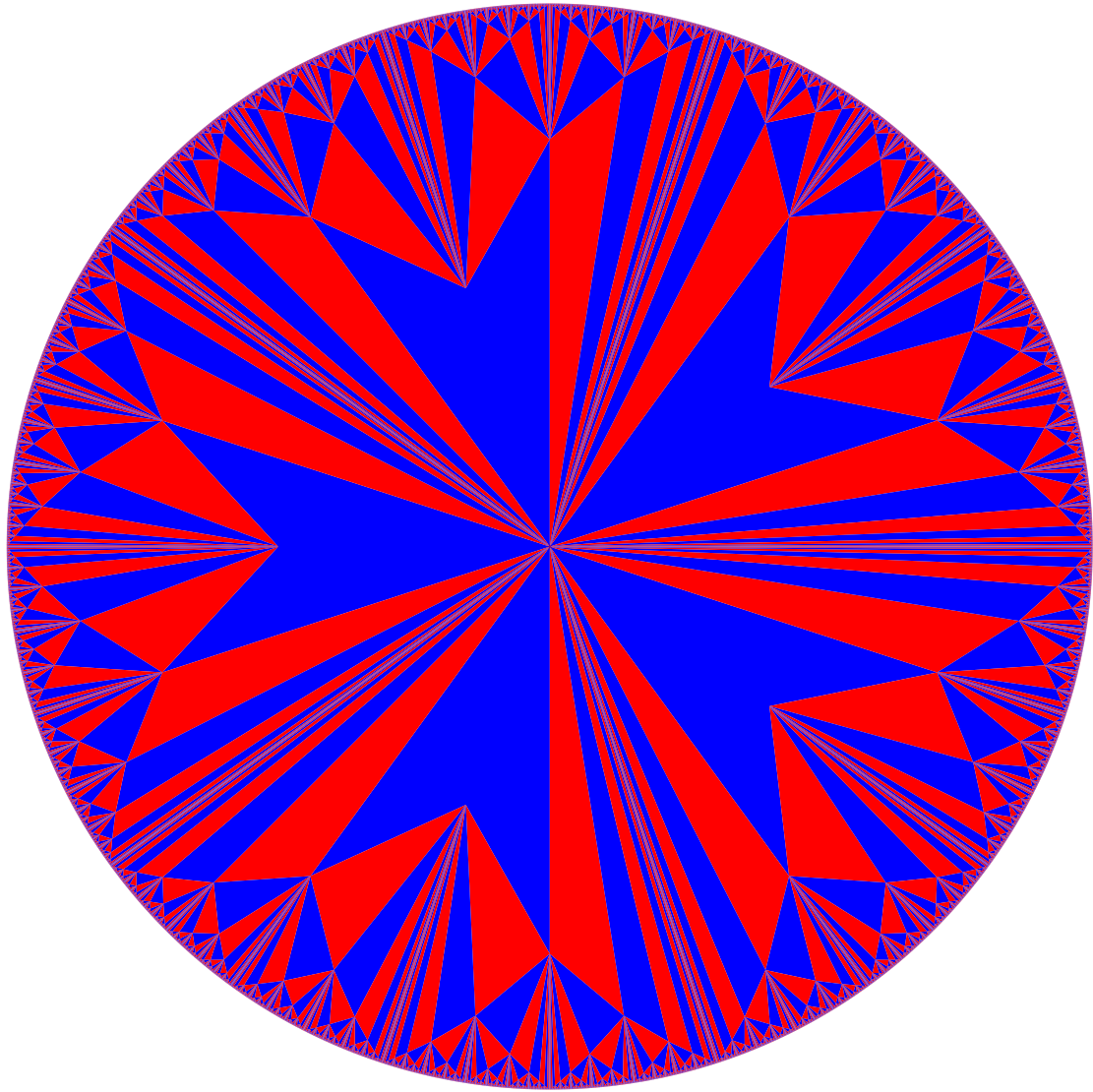


Hans Walser, [20080901a]

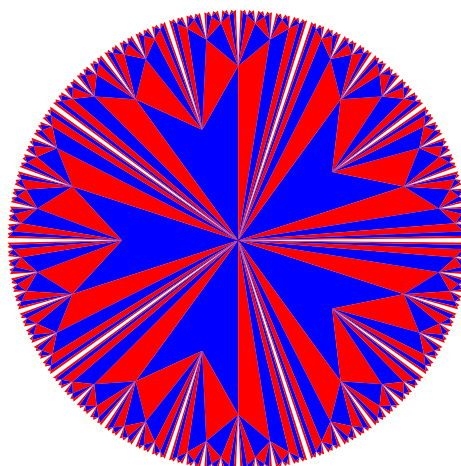
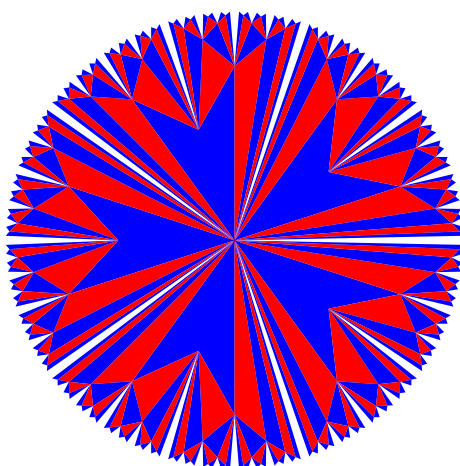
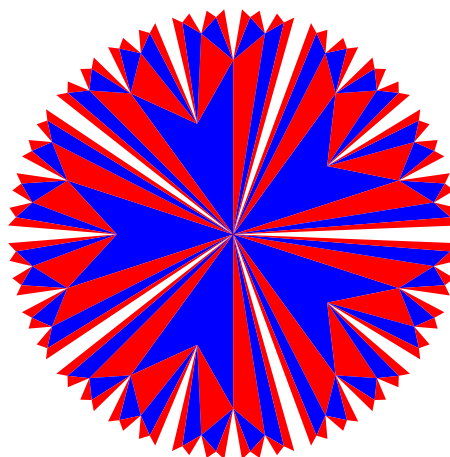
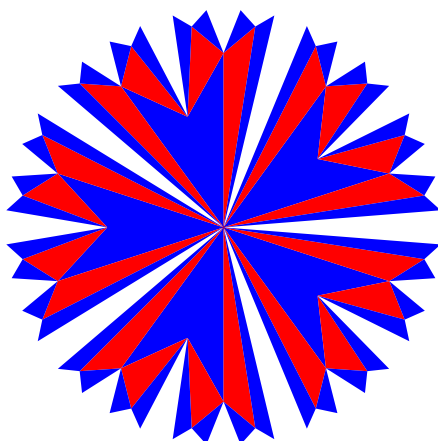
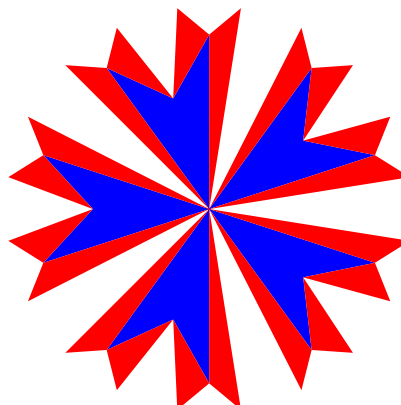
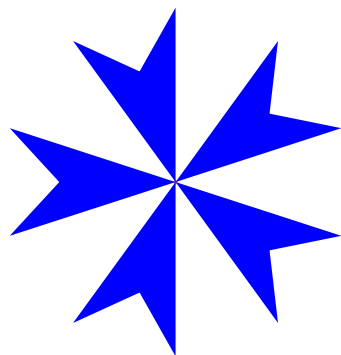
## Blumenfraktale

### 1 Beispiel



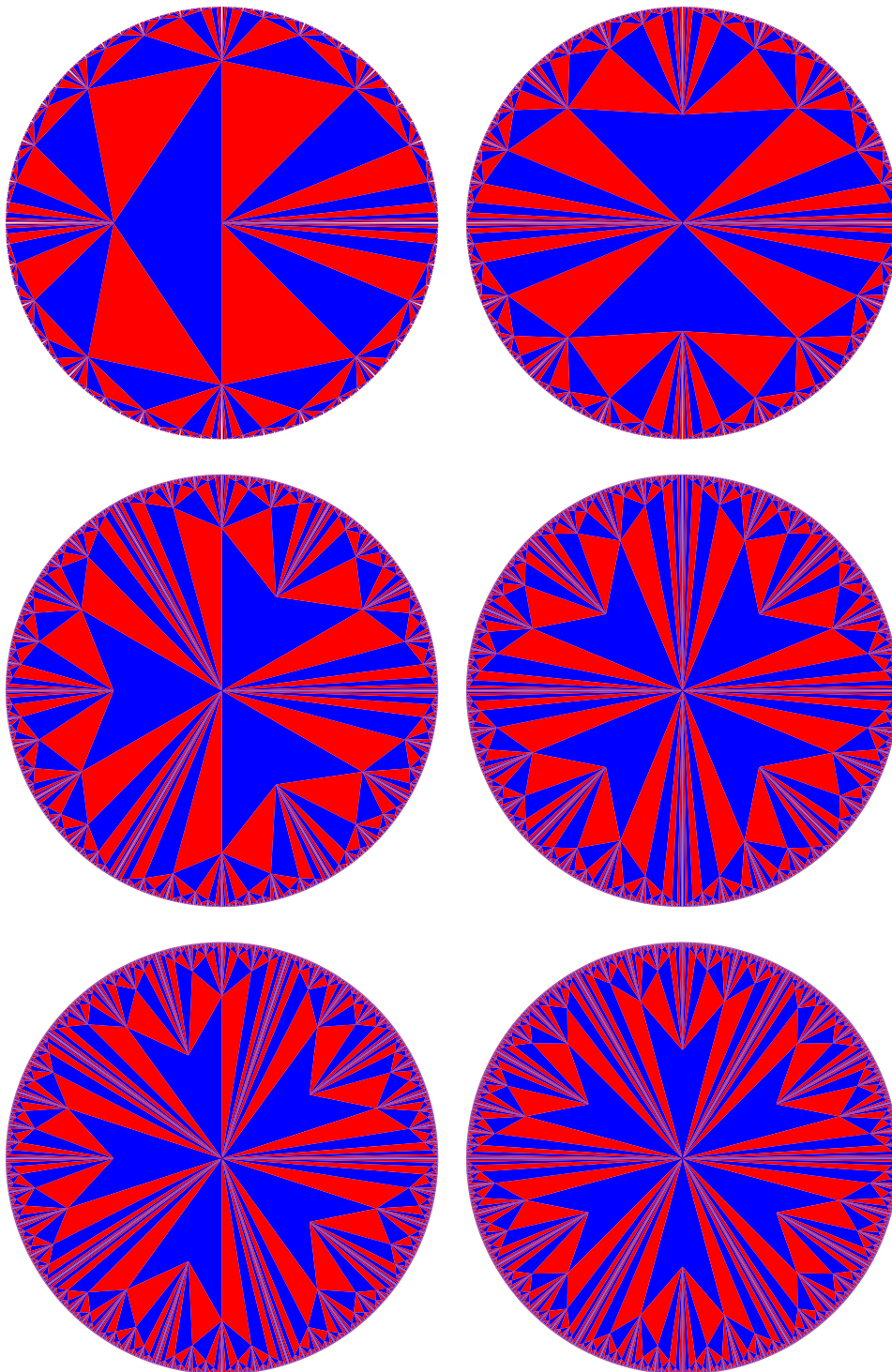
Beispiel

## 2 Entwicklung einer fünfblättrigen Blume



Entwicklung

### 3 Entwicklung nach Anzahl Blütenblätter



Entwicklung

## 4 Hintergrund

Die Grafiken wurden mit folgendem MuPAD Programm erzeugt:

```
g:=12:
Bl:=5:
Groesse:=150:
n:=g+1:
T:=2*PI/Bl:

pol:=(b,i)->plot::Polygon2d([
[(1-gcd(k,2^i)/2^i)*cos(T*(k*(1/2)^i)+b*T),
(1-gcd(k,2^i)/2^i)*sin(T*(k*(1/2)^i)+b*T)]$k=1..2^i,
[(1-gcd(k,2^(i-1))/2^(i-1))*cos(T*(1-k*(1/2)^(i-1))+b*T),
(1-gcd(k,2^(i-1))/2^(i-1))*sin(T*(1-k*(1/2)^(i-1))+b*T)]
$k=1..2^(i-1)], LinesVisible = FALSE, LineWidth=1,
LineColor=[1,1,1], Filled=TRUE, FillPattern=Solid,
FillColor=[i mod 2,0,1-i mod 2, 1]):

plot((pol(b,i)$i=1..n)$b=1..Bl, Scaling=Constrained,
ViewingBox=[-1..1,-1..1], Width=Groesse, Height=Groesse,
Axes=None);
```