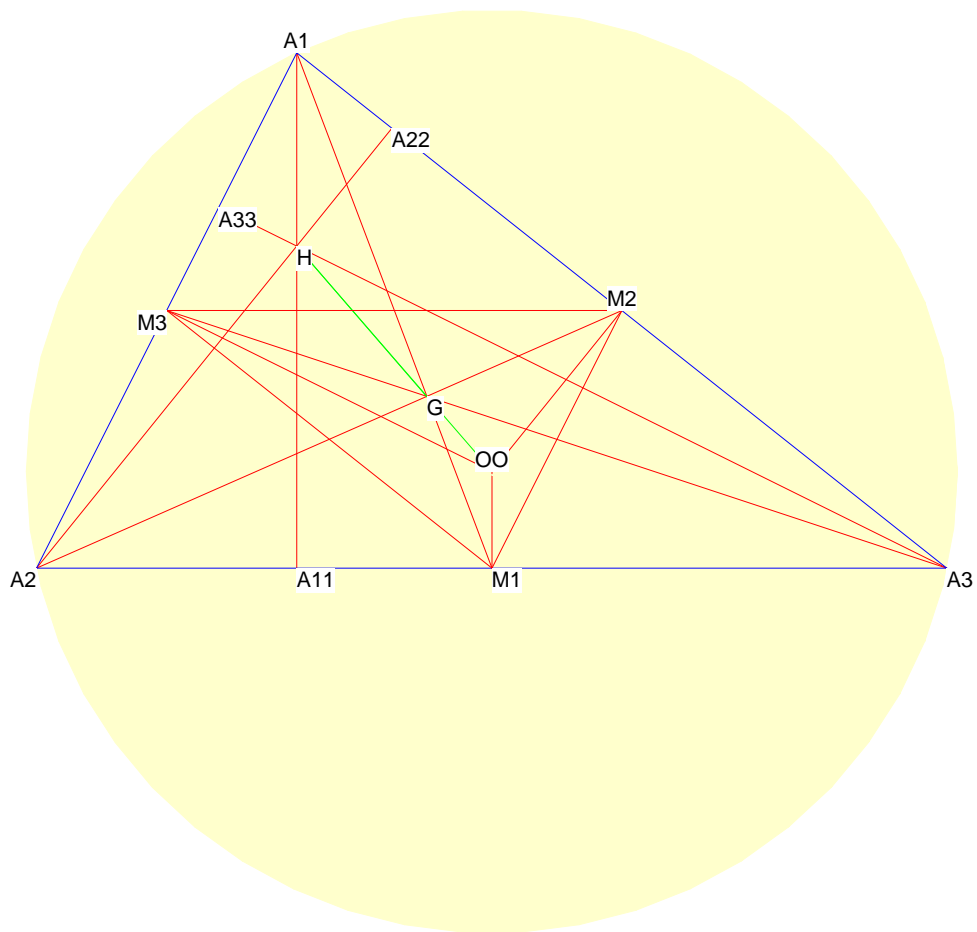


```

> with(geometry);
[Appolonius, AreCollinear, AreConcurrent, AreConcyclic, AreConjugate, AreHarmonic,
  AreOrthogonal, AreParallel, ArePerpendicular, AreSimilar, AreTangent, CircleOfSimilitude,
  CrossProduct, CrossRatio, DefinedAs, Equation, EulerCircle, EulerLine, ExternalBisector,
  FindAngle, GergonnePoint, GlideReflection, HorizontalCoord, HorizontalName, IsEquilateral,
  IsOnCircle, IsOnLine, IsRightTriangle, MajorAxis, MakeSquare, MinorAxis, NagelPoint,
  OnSegment, ParallelLine, PedalTriangle, PerpenBisector, PerpendicularLine, Polar, Pole,
  RadicalAxis, RadicalCenter, SensedMagnitude, SimsonLine, SpiralRotation, StretchReflection,
  StretchRotation, TangentLine, VerticalCoord, VerticalName, altitude, area, asymptotes,
  bisector, center, centroid, circle, circumcircle, conic, convexhull, coordinates, detail, diagonal,
  diameter, dilatation, directrix, distance, draw, dsegment, ellipse, excircle, expansion, foci,
  focus, form, homology, homothety, hyperbola, incircle, intersection, inversion, line, medial,
  median, method, midpoint, orthocenter, parabola, point, powerpc, projection, radius,
  randpoint, reciprocation, reflection, rotation, segment, sides, similitude, slope, square, stretch,
  tangentspc, translation, triangle, vertex, vertices]
> triangle(T, [point(A2,0,0), point(A1,2,4), point(A3,7,0)]);
      T
> circumcircle(C,T, 'centername'=OO):
> altitude(A2A22,A2,T,A22); altitude(A3A33,A3,T,A33):
  altitude(A1A11,A1,T,A11):
      A2A22
> orthocenter(H,T): centroid(G,T):
> median(A1M1,A1,T,M1):
  median(A2M2,A2,T,M2):
  median(A3M3,A3,T,M3):
> dsegment(dsg1,OO,H): dsegment(dsg2,H,G):
  dsegment(OM1,OO,M1): dsegment(OM2,OO,M2):
  dsegment(OM3,OO,M3):
  triangle(T1,[M1,M2,M3]):
> AreCollinear(OO,H,G);
      true
> testeq(distance(H,G) = 2*distance(G,OO));
draw([C(color='COLOR'(RGB,1.00000000,1.00000000,.8000000000),filled=true),
T(color=blue),T1,A3M3,A2M2,A1M1,A2A22,A3A33,A1A11,
dsg1(style=LINE,color=green,thickness=3),dsg2(thickness=3,color=
green),OM1,
OM2,OM3],axes=NONE);
      true

```



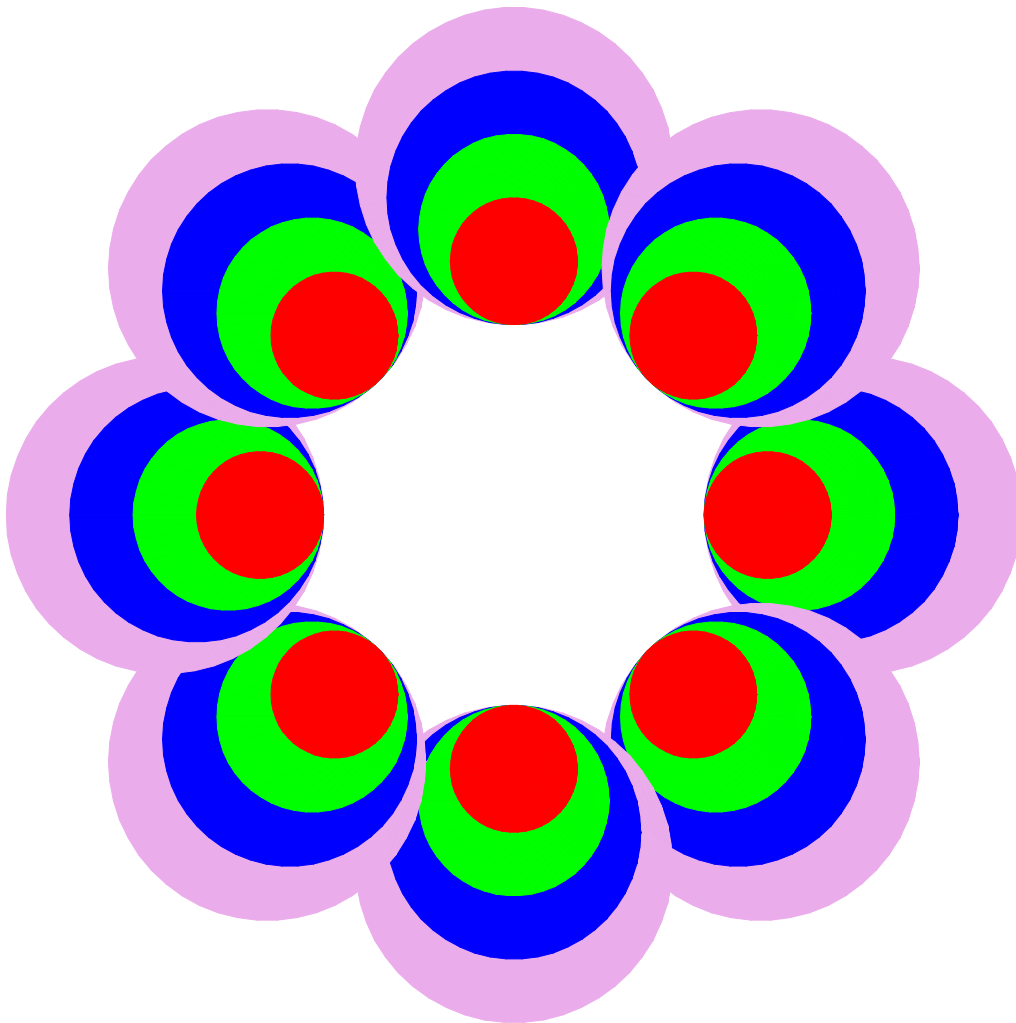
```

> angle := table():
n := 8:
for i to n do angle[i] := 2*Pi*i/n od:
dsegment(dseg,point(A,0,0),point(B,4,0)): point(o,0,0):
circle(c,[o,1]):
homothety(c1,c,3/2,point(M,-1,0)):
homothety(c2,c,2,point(M,-1,0)):
homothety(c3,c,5/2,point(M,-1,0)):
translation(t,c,dseg):
translation(tt,c1,dseg):
translation(ttt,c2,dseg):
translation(tttt,c3,dseg):
for i from 1 to 8 do
  rotation(t.i,t,angle[i],counterclockwise,o);
  rotation(tt.i,tt,angle[i],counterclockwise,o);
  rotation(ttt.i,ttt,angle[i],counterclockwise,o);
  rotation(tttt.i,tttt,angle[i],counterclockwise,o);
od:

```

```
draw([seq(op([t.i(color=red),tt.i(color=green),ttd.i(color=blue)
,
ttd.i(color=plum)]),i=1..n)],printtext=false,filled=true,axes=n
one,
title=`An example of translation, rotation, dilatation of a
circle`);
```

An example of translation, rotation, dilatation of a circle



[ >