## Fractals

Draw a vertical segment
Construct its midpoint Label the points A, B, C


Highlight point C
Click Transform/Mark Center
Highlight Point B
Click Transform/Rotate
Rotate by Fixed Angle $120^{\circ}$
Click Rotate
With this new point highlighted, Click Transform/Rotate
Rotate by Fixed Angle $120^{\circ}$
Click Rotate


Construct a segment from Point C to each of the newly rotated points. Label the points ( $\mathrm{B}^{\prime}$ and B ").


Same fractal with a twist...
Click File/New Sketch
Draw a vertical segment
Construct a point on segment
Label the points A, B, C



Draw a small circle off to the right.
Construct two segments from the center to the circle creating an angle Label the center D and the other two points E and F.
Highlight points E, D and F, in that order.
Click Transform/Mark Angle

De-select everything (Click in a white area.)
Highlight Point C
Click Transform/Mark Center
Highlight Point B
Click Transform/Rotate/
Marked Angle - EDF
Click Rotate


With this new point highlighted,
Click Transform/Rotate
Marked Angle EDF
Click Rotate
Construct a segment from Point C to each of the newly rotated points. Label the points ( $\mathrm{B}^{\prime}$ and $\mathrm{B}^{\prime \prime}$ ).

Highlight Points A and C, in that order
Click Transform/Iterate
Highlight C then B'
Click Structure/Add Map
Highlight C then B"
Click Iterate
Click the Plus sign about 8 times.
Move point B and observe
Move Point E around the circle and observe.
Animate point E with an animation button.

