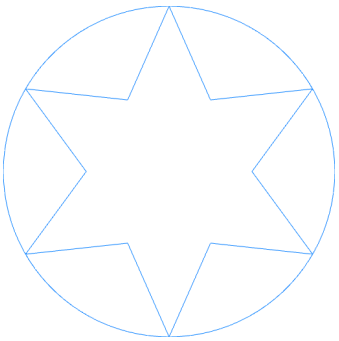
Homework 2
Electronically submit your programs via D2L Dropbox

1. Create two files: **symbol.html and symbol.js** to draw the following symbol in a web browser. The radius of the outer circle is 1.0 and the radius of the inner circle is 0.5. Use white background and choose any color for the figure.



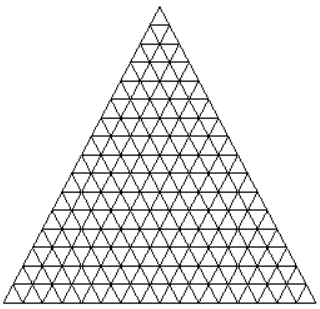
2. Apply the technique used in the recursive version of the Siepinski's Gasket program to tessellate an equilateral triangle that is centered at origin, as shown in figure (a). Create a twisted triangle (figure (b)) by rotating the vertices of each small triangle according to both the angle of rotation and the distance of each vertex to the origin as shown below:

$$x' = x * \cos(d * \theta) - y * \sin(d * \theta)$$

$$y' = x * \sin(d * \theta) + y * \cos(d * \theta)$$

where

$$d = \sqrt{x^2 + y^2}$$



(a)

(b)

You should experiment with the angle of rotation used in your program to make your twisted triangle closely matching the one in figure (b). There is no need to draw the figure in (a). It is there to give a hint about the behind-the-graph design for a tessellated triangle. Create two files: **twistedTriangle.html** and **twistedTriangle.js** for this problem.