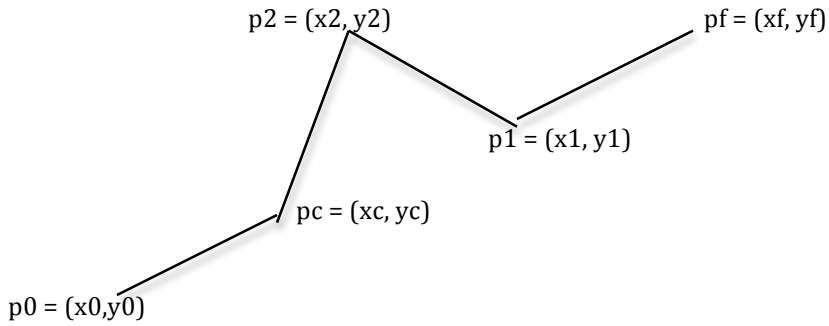
KOCH CURVE

Start with a line segment p0 pf, where p0 = (x0, y0) and pf = (xf, yf)
Replace line segment p0 pf with
three segments: p0 pc, pc p2, p2 p1, p1 pf

p0 and pf are given.

Calculate pc = (xc, yc) = (1/3(xf-x0), 1/3(yf-y0))
p1 = (x1, y1) = (1/3(xf-x0), 2/3(yf-y0))
p2 as calculated below.



Given a center of rotation, (xc, yc), rotate another point (x1, y1) by Θ degrees, the equations for the new point (x2, y2) are given above. See http://stackoverflow.com/questions/12161277/how-to-rotate-a-vertex-around-a-certain-point

$x2 = xc + (x1 - xc) * \cos\Theta - (y1 - yc) * \sin\Theta$
$y2 = yc + (x1 - xc) * \sin\Theta + (y1 - yc) * \cos\Theta$

Θ = 60 degrees:
cos(60°) = ½
sin (60°) = sqrt(3)/2