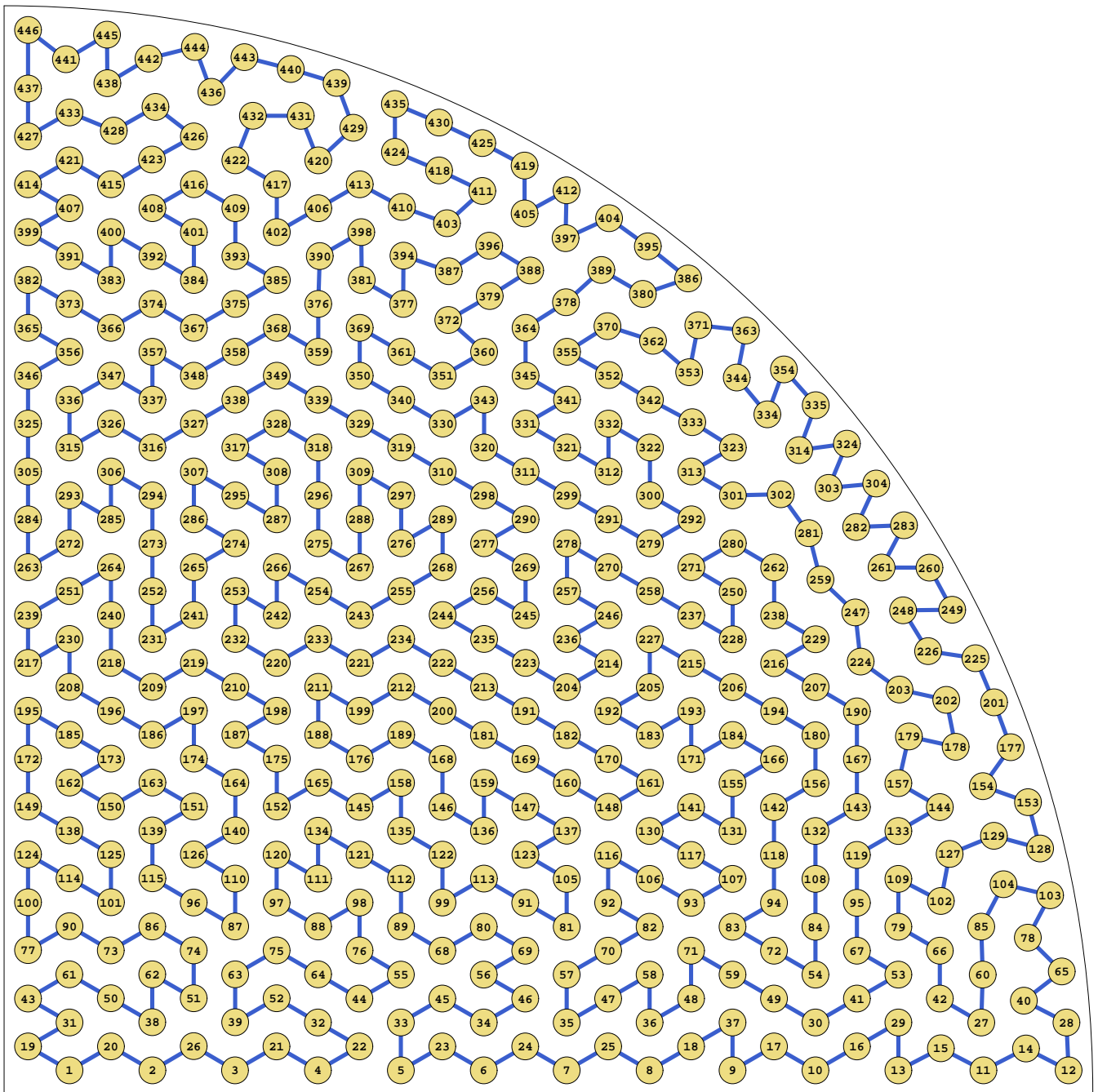# 446 circles in a circular quadrant



radius  =     0.021986755947    density  = 0.862416707745
ratio   =  45.481925683205    length   =  19.630286