180 circles in a 1x0.60000 rectangle
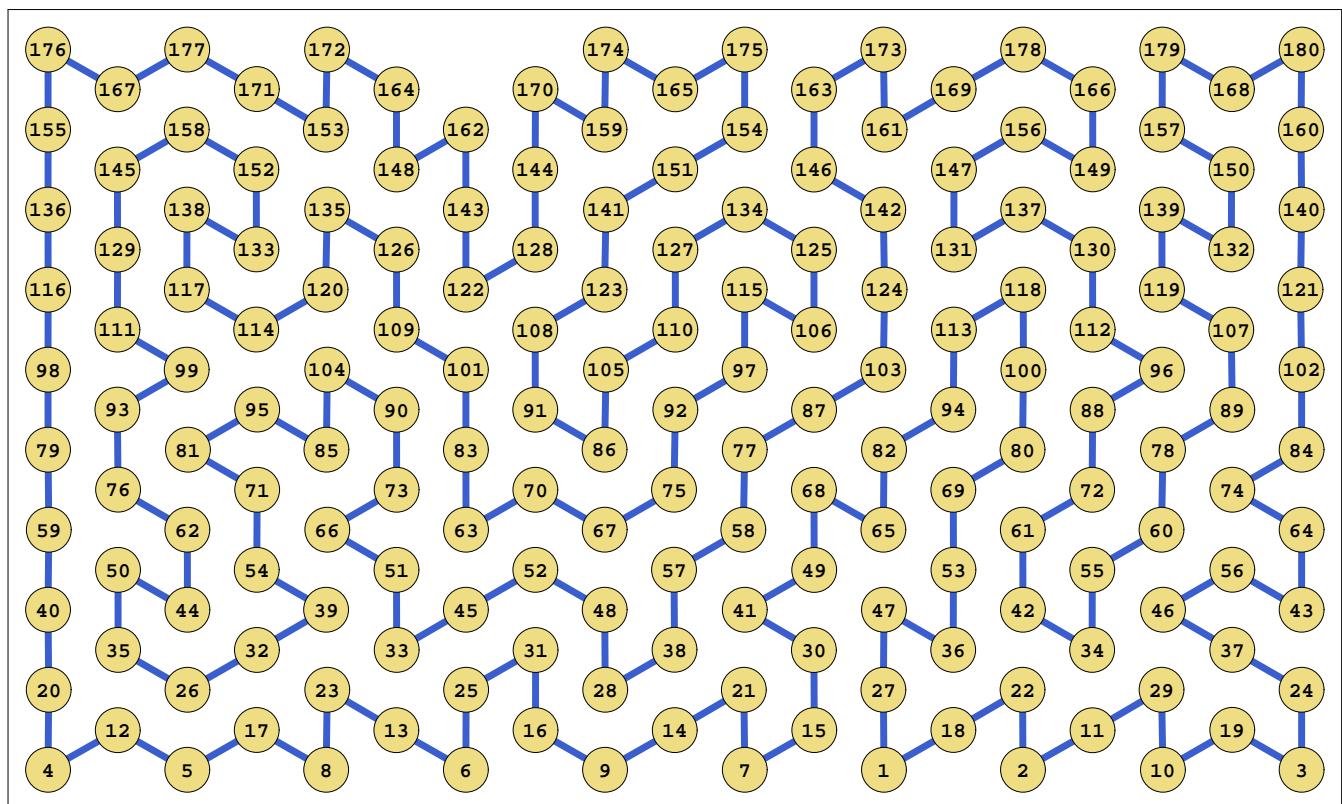
radius =   0.030000272979   density = 0.848245453142
ratio   = 19.999818015610   length   =   10.801928