Week 9 (11/11/02)

Fractal moment

Take an equilateral triangle of side ℓ, and remove the "middle" triangle (1/4 of the area). Then remove the "middle" triangle from each of the remaining three triangles (as shown), and so on, forever. Let the final object have mass m. Find the moment of inertia of this object, around an axis through its center and perpendicular to its plane.