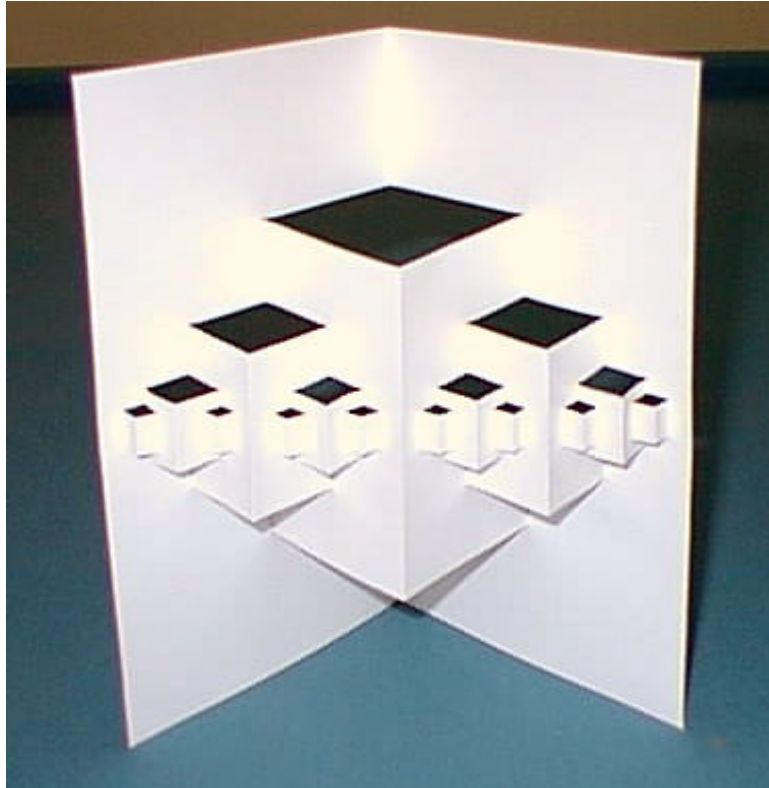


# FRACTAL CARDS

Your first fractal card should look like the one shown on the left below.



Follow the instructions shown at the far right.

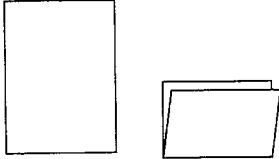
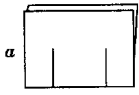


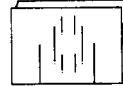
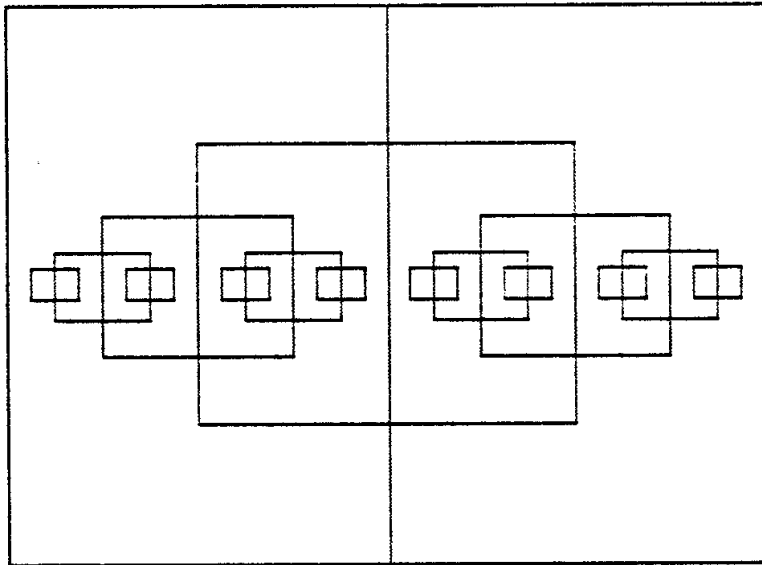
1. Take a sheet of paper, and fold it in half.  

2. Make cuts of length  $\frac{a}{2}$  one-fourth of the way in from each edge.  

3. Fold along the line segment produced by the two cuts, as shown.  

4. Repeat cutting and folding until the thickness of the paper prevents you from continuing.  

5. Once you stop cutting, open the folds back out and push out the fractal.  


Fig. 1  
Directions for making a fractal card

# FRACTAL CARDS

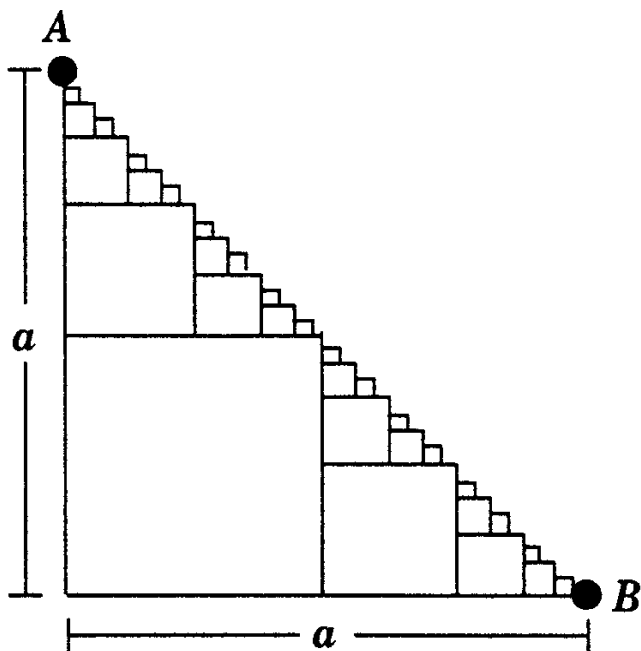
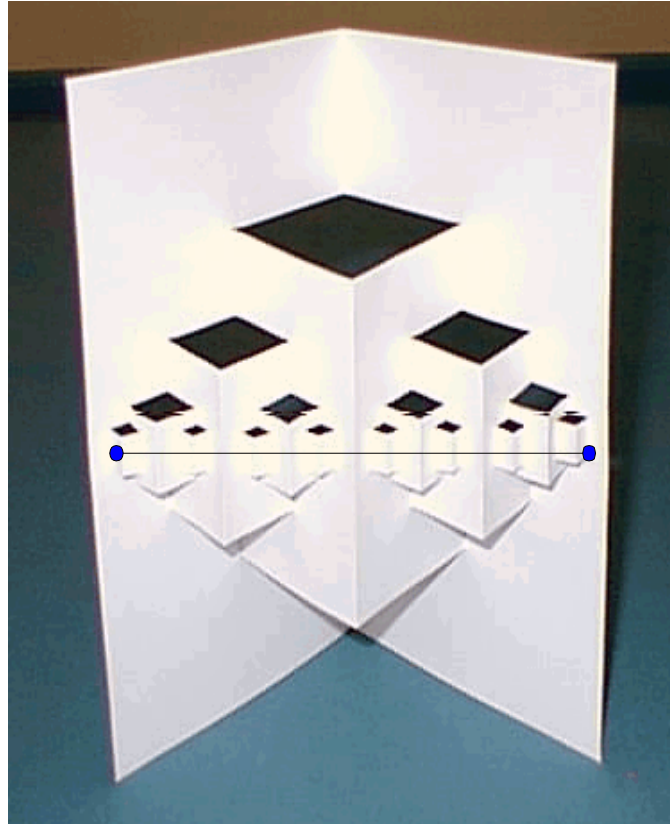
**Make a sketch of the fractal card lying out flat.**



**What is the combined surface area of the "cells?"**

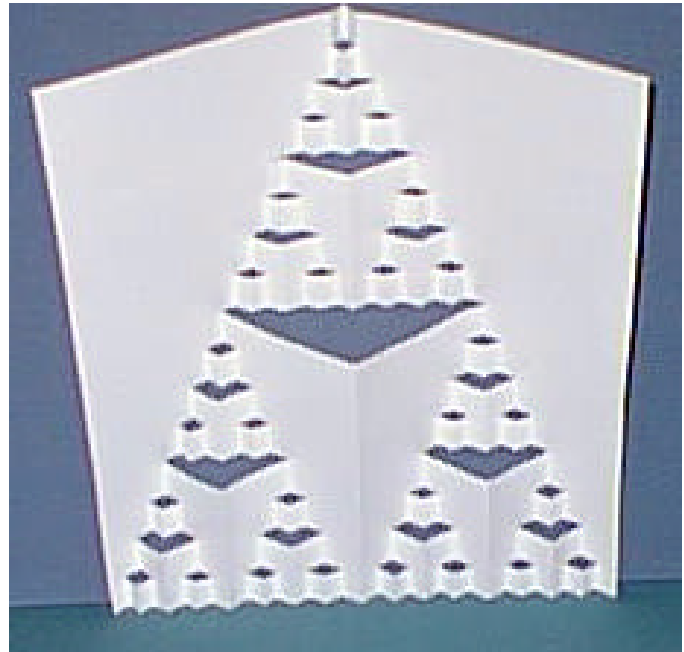
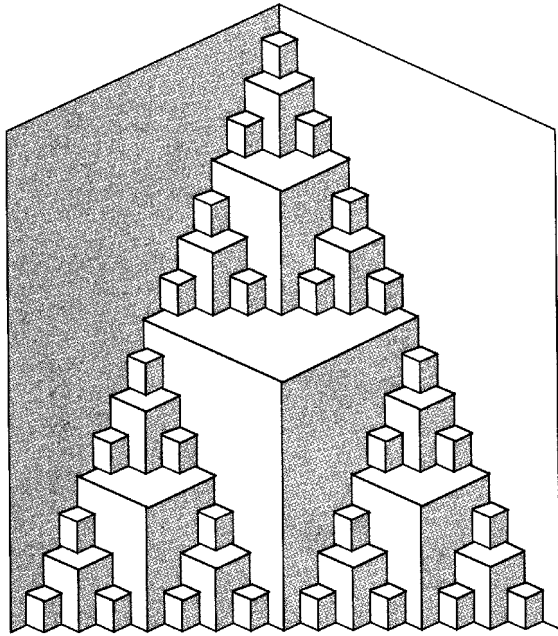
# FRACTAL CARDS

How far is it between the indicated points?



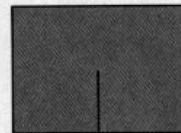
# FRACTAL CARDS

Your second fractal card should look like the one shown below.

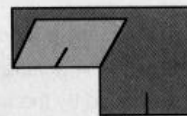


Follow the instructions shown at the right.

1. Fold a sheet of paper in half. One-half of the way along the fold, make a cut approximately one-half the length of the width.



2. Fold one of the halves up to the cut. Make cuts at the folds along the bottom edges of the paper.



3. Repeat the process.

