

# Patterns In Fractals Worksheet

This worksheet is intended for use with the lesson [Patterns in Fractals](#). This page should be printed out in order to help the students organize their findings during the lesson.

## [The Hilbert Curve](#)

Find the sequence composed of individual line segment lengths. What is the pattern?	Find the sequence composed of the number of line segments at each stage. What is the pattern?	Find the sequence composed of total combined line segment lengths. What is the pattern?	What do these sequences do as the number of stages gets larger and larger?

## [Another Hilbert Curve](#)

Find the sequence composed of individual line segment lengths. What is the pattern?	Find the sequence composed of the number of line segments at each stage. What is the pattern?	Find the sequence composed of total combined line segment lengths. What is the pattern?	What do these sequences do as the number of stages gets larger and larger?

## [Koch's Snowflake](#)

Find the sequence composed of the length of a side at each stage. What is the pattern?	Find the sequence composed of the number of sides at each stage. What is the pattern?	Find the sequence composed of number of new triangular bumps added at each stage. What is the pattern?	<b>Challenge:</b> Find the sequence composed of total area at each stage. What is the pattern?	What do these sequences do as the number of stages gets larger and larger?

Sierpinski's Triangle

Find the sequence composed of the number of triangles at each stage. What is the pattern?	Find the sequence composed of the length of a side at each stage. What is the pattern?	Find the sequence composed of area of one triangle at each stage. What is the pattern?	Find the sequence composed of total area colored in at each stage. What is the pattern?	What do these sequences do as the number of iterations gets larger and larger?

Sierpinski's Carpet

Find the sequence composed of the number of squares at each stage. What is the pattern?	Find the sequence composed of the length of a side at each stage. What is the pattern?	Find the sequence composed of area of one square at each stage. What is the pattern?	Find the sequence composed of total area colored in at each stage. What is the pattern?	What do these sequences do as the number of stages gets larger and larger?