

Snowflake Curve

Student Activity Procedures

You will use Apple Works Paint or another paint application you have available for this project.

Step One.

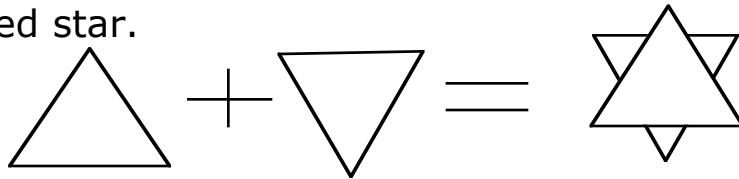
Begin by reducing your screen size to 75% and painting your background a dark color.

Step Two.

Select the triangle tool and create an equilateral triangle. Center the triangle in the upper center of the page to allow for the next step.

Step Three.

Create another equilateral triangle over the existing one to create a 6 sided star.

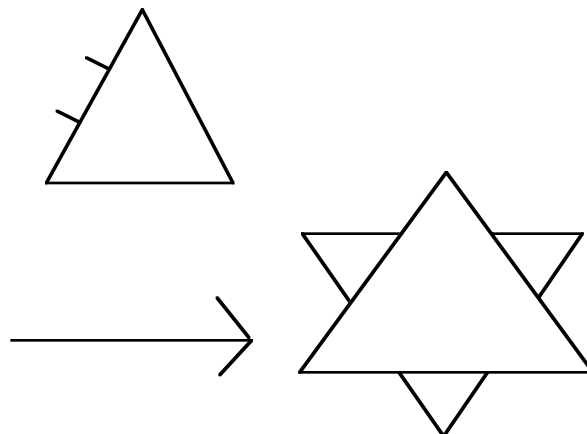


You can go into the star with your paintbrush and remove the intersecting lines showing only the perimeter of the 6 sided star.

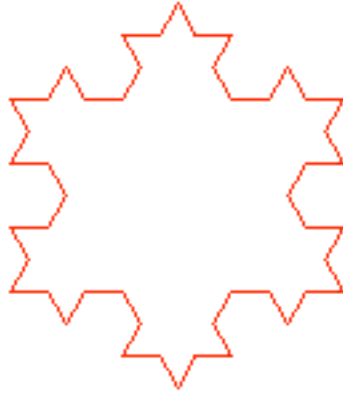
Step Four.

You might like to zoom in on only one point of the star for this next step. This next step will be repeated on each point of the star.

You are going to divide this line into thirds and create an equilateral triangle that intersects the middle 1/3 of the line segment. The point of the star will look like this when finish



This looks like what you did in the first two steps and it actually is but remember this is being done to only one point of the six sided star and will be repeated on each point. The completed star will look like this:



You should begin to see the pattern that is created with this fractal. The equilateral triangle is repeated and bisected by more equilateral triangles and this can continue to infinity if we had the capability to recreate it that far. We are limited in what we can replicate but the fractal can continue to grow and change as it repeats the pattern.

