

Chaos Game Analysis
Math
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M330

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Introduction to the Chaos Game

The chaos game is a process that when repeated over and over will eventually produce an image. This kind of image that the chaos game produces is called a *fractal*, which is simply an image that is created by a mathematical process. Before we talk more about fractals, let us first clearly denote the rules of the chaos game.

To play the chaos game:

1. Start by placing three points on a piece of paper. For the best results, try placing the points roughly in the three vertices of an equilateral triangle.
2. Next, select some point inside or ontop of the invisible edges connecting the three vertices you drew.
3. Once you have created your initial point, select one of the three vertices randomly (You may use a dice or random number generator)
4. Draw a new point halfway between the randomly selected vertex and your initial starting point.