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SOME STRUCTURAL AND DYNAMICAL PROPERTIES OF MANDELBROT SET

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ABSTRACT

In this paper, we have done few investigations on some dynamical as well as structural properties of the Mandelbrot set, which arises as a fractal from the iteration of the complex polynomial of the form $z^2 + c$. We have also discussed about some amazing features shown by the periodic numbers and rotation numbers related to the primary bulbs of the Mandelbrot set.

KEYWORDS: Critical Point, Julia Set, Mandelbrot Set, Fixed Point, Periodic Point, Primary Bulb, Iteration of a Map, Rotation Number, Schwarzian Derivative