Abstract

In this difference equation, Stability, Periodicity, boundedness, global Stability.

We investigate some qualitative behavior of the solutions of the difference equation \( x_{n+1} = \frac{1}{x_n + x_{n-1}} \) where the initial conditions \( x_0, x_1 \) are arbitrary positive real numbers such that \( x_0 + x_1 \neq 0 \) where \( a \) and \( b \) are positive constants.

References

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**Index Terms**

Computer Science Applied Mathematics

**Keywords**

Difference equation, Stability, Periodicity, Boundedness