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

We investigate some qualitative behavior of the solutions of the difference equation \( \frac{y_{n+1}}{y_{n-1}} = \frac{y_{n-2}}{y_{n-3}} \) where the initial conditions \( y_{-2}, y_{-1}, y_0 \) are arbitrary positive real numbers such that \( y_{n+1} \neq 0 \) where \( a \) and \( b \) are positive constants.

References

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**Index Terms**

Computer Science  Applied Mathematics

**Keywords**

Difference equation, Stability, Periodicity, Boundedness