1163-39-335   **Evelina Giusti Lapierre*** (`elapierre@jwu.edu`) and **Wirot Tikjha** (`wirottik@psru.ac.th`).
On the Global Behavior of a System of Piecewise Linear Difference Equations.

In a previous paper we considered the system $x_{n1} = |x_n| - y_n - 1$ and $y_{n1} = x_n|y_n| - 1$ and showed by mathematical induction that when the initial condition is an element of the closed second or fourth quadrant, the solution to the system is either a prime period-3 solution or one of two prime period-4 solutions. In this paper we complete the study of the global behavior of the system. We show that when the initial condition is an element of $mathbbR^2$ then the solution is the equilibrium point, one of two prime period-3 solutions, or one of two prime period-4 solutions. (Received September 02, 2020)