1135-05-1095 Kristina Marotta* (kmarott@cedarcrest.edu), 927 Dorset Rd, Allentown, PA 18104, James Hammer (jmhammer@cedarcrest.edu), 100 College Dr, Allentown, PA 18104, and Joshua Harrington (jsharrin@cedarcrest.edu), 100 College Dr, Allentown, PA 18104. (a,b)-Sudoku Latin Squares Forbidding Distance One.

Let n be a positive integer and let (a, b) be an ordered pair such that ab = n. An (a, b)-Sudoku Latin square is an $n \times n$ array partitioned into $a \times b$ regions in the natural way so that every row, column, and $a \times b$ region contains every symbol $\{1, 2, \ldots, n\}$ exactly once. An $n \times n$ array has property K if no two adjacent cells, that is cells that share an edge, contain consecutive integers. We will investigate the necessary and sufficient conditions for the existence of (a, b)-Sudoku Latin squares that have property K. (Received September 19, 2017)