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Braxton Carrigan, David Diaz and James M Hammer* (jmhammer@cedarcrest.edu), 100 College Drive, Curtis 219, Allentown, PA 18104. *Sudoku Pair Latin Squares.*

A (a, b) -Sudoku pair latin square is a latin square that is simultaneously a (a, b) -Sudoku latin square and a (b, a) -Sudoku latin square. This presentation provides constructions for many arbitrary classes of positive integer pairs. Specifically we complete the construction of a $(3, b)$ -Sudoku pair latin square for any positive integer b . Moreover, this implies that there exist factor pair latin squares of order $3p$ for any prime p , answering a question posed by Hammer and Hoffman. (Received September 25, 2018)