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Chico, CA 95929-0525. *A sufficient condition for intrinsic knotting of bipartite graphs.*

We present evidence in support of a conjecture that a bipartite graph with at least five vertices in each part and  $|E(G)| \geq 4|V(G)| - 17$  is intrinsically knotted. We prove the conjecture for graphs that have exactly five or exactly six vertices in one part. We also show that there is a constant  $C_n$  such that a bipartite graph with exactly  $n \geq 5$  vertices in one part and  $|E(G)| \geq 4|V(G)| + C_n$  is intrinsically knotted. Finally, we classify bipartite graphs with ten or fewer vertices with respect to intrinsic knotting. (Received February 17, 2009)