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*Triangle-free graphs with the maximum number of cycles*

In a recent article by Durocher, Gunderson, Li, and Skala, it was asked which triangle-free graphs contain the maximum number of cycles; this question arose from the study of path-finding algorithms. The same authors conjectured that for each  $n \geq 4$ , the balanced complete bipartite graph contains more cycles than any other  $n$ -vertex triangle-free graph. In recent work with Arman and Gunderson, we prove this conjecture for  $n \geq 141$ . This result and possible generalizations are discussed.