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Canada. *Extremal numbers for odd cycles.*

We describe the C_{2k+1} -free graphs on n vertices with maximum number of edges. The extremal graphs are unique for $n \notin \{3k-1, 3k, 4k-2, 4k-1\}$. The value of $\text{ex}(n, C_{2k+1})$ can be read out from the works of Bondy (1971), Woodall 1972, and Bollobás (1979), but here we give a new streamlined proof. The complete determination of the extremal graphs is also new.

We obtain that the bound for $n_0(C_{2k+1})$ is $4k$ in the classical theorem of Simonovits, from which the unique extremal graph is the bipartite Turán graph. (Received August 13, 2013)