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Michael J. Pelsmayer* (pelsmajer@iit.edu), 10 W. 32nd St. E1 208, Chicago, IL 60616. *Odd crossing number is not crossing number.*

The *crossing number* of a graph is the minimum number of edge intersections in a plane drawing of a graph, where each intersection is counted separately. If instead we count the number of pairs of edges that intersect an odd number of times, we obtain the *odd crossing number*. We show that there is a graph for which these two concepts differ, answering a well-known open question on crossing numbers. To derive the result we study drawings of maps (graphs with rotation systems). We also discuss related work. (Received August 30, 2005)