

ON FIXED POINTS OF SOME FUNCTIONS

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Abstract. Let $f : [0, 1] \rightarrow [0, 1]$ be a Darboux function of Baire class one. Then f has fixed point $x \in [0, 1]$, ie. there is a point $x \in [0, 1]$ such that $f(x) = x$. So approximate continuity of f implies that f has a fixed point. In this article I investigate when f has a fixed point x satisfying some other conditions (for example f is bilaterally quasicontinuous at x or even continuous at x).

Key Words and Phrases: Darboux property, Baire class 1, density topologies, quasi-continuity.

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