Bilkent University
Department of Mathematics

Problem Of The Month

Term: September 2010

Let $\Delta(a,b,c) = max(|a-b|, |b-c|, |c-a|)$. We say that a triple (a,b,c) is good, if for all $x \in [0,1]$ we have $-1 \leq ax^2 + bx + c \leq 1$. Find a minimal constant C such that for all good triples $\Delta(a,b,c) \leq C$.