1035 - 39 - 665

Curtis J Kunkel* (ckunkel@utm.edu), University of Tennessee at Martin, Department of Mathematics & Statistics, 209 Hurt Street, Martin, TN 38238. Singular second order boundary value problems on purely discrete time scales.

We study singular discrete second order boundary value problems with mixed boundary conditions over a finite interval. We prove the existence of a positive solution by means of the lower and upper solutions method and the Brouwer fixed point theorem in conjunction with perturbation methods to approximate regular problems. (Received September 13, 2007)