

1092-34-24

**Johnny Henderson\*** ([johnny\\_henderson@baylor.edu](mailto:johnny_henderson@baylor.edu)), Department of Mathematics, Baylor University, Waco, TX 76798-7328. *Existence of local solutions for second order boundary value problems with integral conditions.*

Several basic fixed point theorems are applied for the existence of local solutions of the second order ordinary differential equation,  $y'' + f(x, y, y') = 0$ , satisfying the respective Dirichlet and nonlocal integral boundary conditions,  $y(a) = A$  and  $\int_a^b y(x)dx = B$ . (Received June 26, 2013)