

1014-34-1178 **Michael J. Gray*** (Michael_Gray@baylor.edu), Department of Mathematics, Baylor University, Waco, TX 76798. *Uniqueness Implies Uniqueness, Uniqueness Implies Existence for Nonlocal Boundary Value Problems for Third Order Differential Equations.*

For the third order differential equation, $y''' = f(x, y, y', y'')$, it is shown that uniqueness of solutions for m -point nonlocal boundary value problems, $m \geq 4$, implies the uniqueness and existence of solutions for k -point nonlocal boundary value problems, $3 \leq k \leq m$. (Received September 27, 2005)