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Bo Yang* (byang@kennesaw.edu), 1000 Chastain Road, #1204, Kennesaw, GA 30144. *Positive Solutions for Boundary Value Problems of the Beam Equation.*

We consider several boundary value problems for the fourth order beam equation, which arise from the study of elasticity. Upper and lower estimates for positive solutions to the problems are obtained. Sufficient conditions for the existence and nonexistence of positive solutions are also obtained. (Received February 10, 2009)