

University of Massachusetts - Amherst  
Department of Civil & Environmental Engineering  
CEE 630: Advanced Solid Mechanics (Fall 2009)

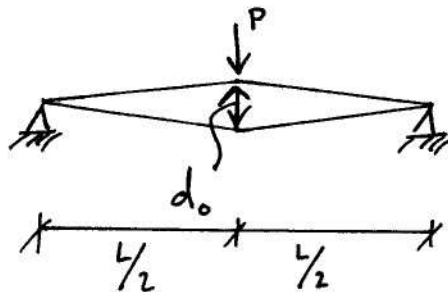
**Homework #6: Due November 5**

**Problem 1:** 2.42

**Problem 2:** 2.43 How far above the surface of the earth would you have to raise this sphere for it to store an amount of gravitational potential energy equivalent to the strain energy calculated in problem 2.43. How fast would the sphere need to be moving to have an equivalent amount of kinetic energy.

**Problem 3:** 2.46

**Problem 4:** Calculate the strain energy in the rectangular cross section beam shown below. the cross section has constant thickness  $t$



**Problem 5:** Approximately how many hours did it take you to complete this assignment?