

Due Date: October 29, 2015

NAME: \_\_\_\_\_

**HOMEWORK SET # 5**  
**ME/AE 5212 Introduction to Finite Element Analysis**

1. Solve Example 3.2.1 using **fem1d** with 4 linear, 2 quadratic and 4 quadratic elements. Compare the results with exact solution given in Table 3.2.1. Plot  $u(x)$  vs  $x$  and  $du/dx$  vs  $x$ .

(10 points)

2. Solve Example 4.3.1 using **fem1d** with 3 linear elements and compare the results with those obtained using hand calculations.

(10 points)

Input data for Problems 1 and 2 are posted on the Blackboard. Need a summary of the results with units. The summary should follow the problem statement. Also, provide the listing of sample data and output.