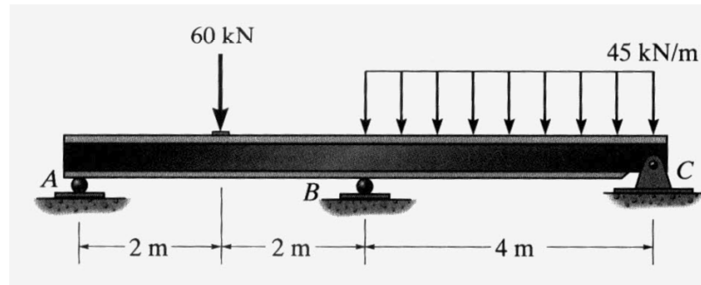


**CE 383 STRUCTURAL ANALYSIS**  
**Fall Term, 2011**  
**Homework #2**

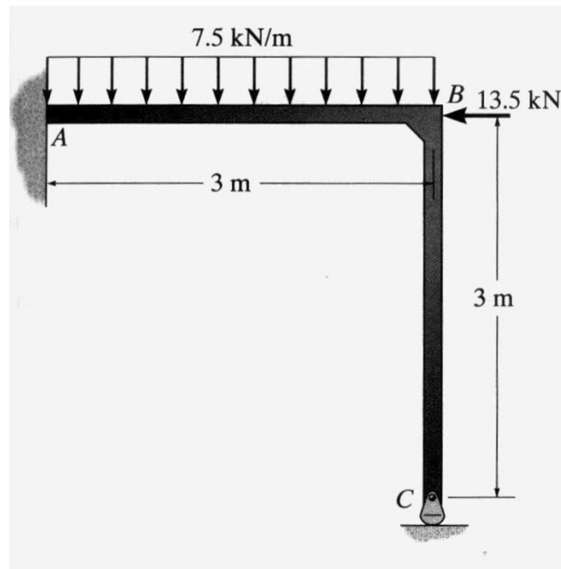
**Due: Midterm date**  
**(02.11.2011)**

1-



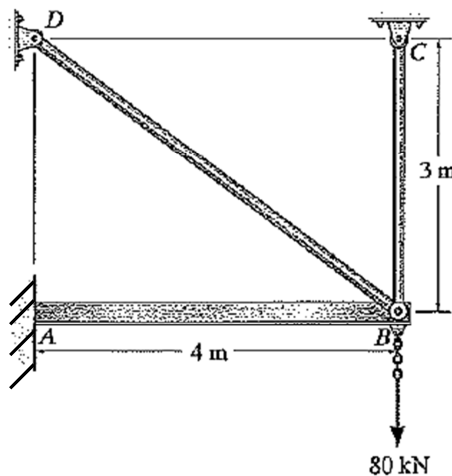
Determine the reactions at the supports A, B and C, then draw the shear and moment diagrams.  $EI$  is constant.

2-



Determine the reactions at the supports.  $EI$  is constant. Neglect axial deformation of the members.

3-



The cantilever beam AB is additionally supported using two tie rods, BD and BC. Determine the force in each of these rods. Neglect axial compression and shear in the beam. For the beam,  $I_b = 200(10^6) \text{ mm}^4$ , and for each of tie rod,  $A = 100 \text{ mm}^2$ . Take  $E = 200 \text{ GPa}$ .