

CE 203 STRUCTURAL MECHANICS I

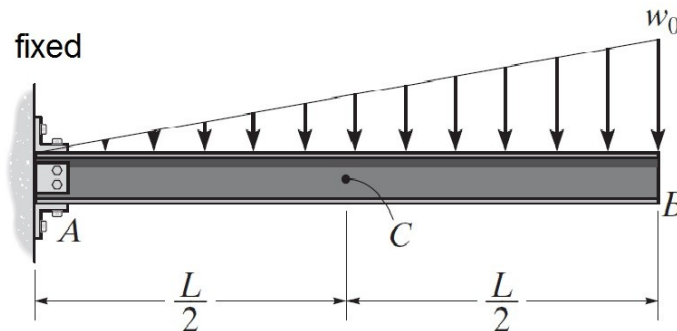
First Semester 2012 / 2013 (121)

HOMEWORK NO. 9

- **Textbook Sections Covered: 6.1 – 6.2 , Shear & Moment Diagrams**
- **DUE DATE: Monday, 19 November 2012**

IMPORTANT : When you draw the shear and moment diagrams , you are expected to have clear, complete, and neat sketches that show all the necessary details (numerical values , proper slopes ,degree of curve, concavity, ...etc). Your solution should show the calculation of the necessary areas or distances.

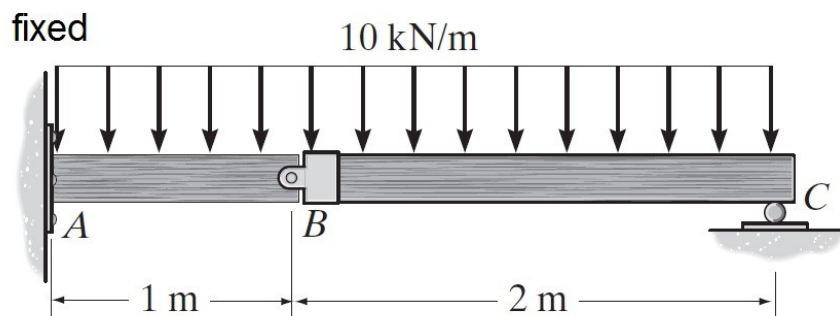
1 – Determine the internal shear force, and moment at point C in the cantilever beam. Use a section at C (method covered in Statics & section 6.1).



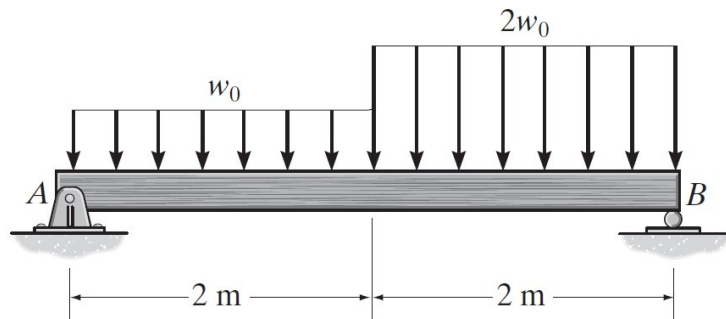
2- For the beam shown above (problem 1), draw the shear and moment diagrams **using the Graphical Method**.

3- For the beam shown in problem F6-6 (page 272 in textbook), draw the shear and moment diagrams **using the Graphical Method**.

4 - For the given beam, draw the shear and moment diagrams **using the Graphical Method**. The beam consists of 2 parts connected at B using a pin. (Hint : First, determine the support reactions by separating the beam into 2 parts AB & BC. Then , put the beam back together as one piece and start drawing the diagrams using the obtained reactions) .



5 – For the given beam, draw the shear and moment diagrams **using the Graphical Method**.



6- For the given beam, draw the shear and moment diagrams **using the Graphical Method**.

