

# To do ...

- Quiz 4 this week!
- Quiz 3 pick up at Grainger OH
  - Wed 4-9 pm
  - Thurs 4-9 pm
- HW 14 PL due **Wed (today)**
- HW 15 ME due **Thurs**

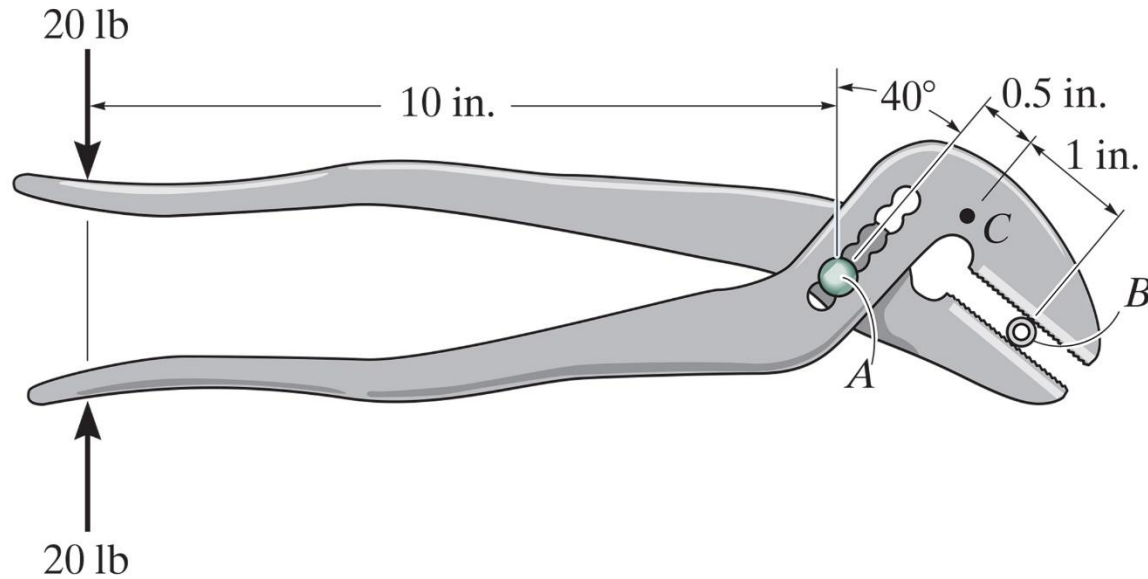
The careful text-books measure  
(let all who build beware!)  
The load, the shock, the pressure  
Material can bear.  
So when the buckled girder  
Lays down the grinding span,  
The blame of loss, or murder,  
Is laid upon the man.  
Not on the stuff – the Man!

Rudyard Kipling (1865-1936)  
“Hymn of Breaking Strain”

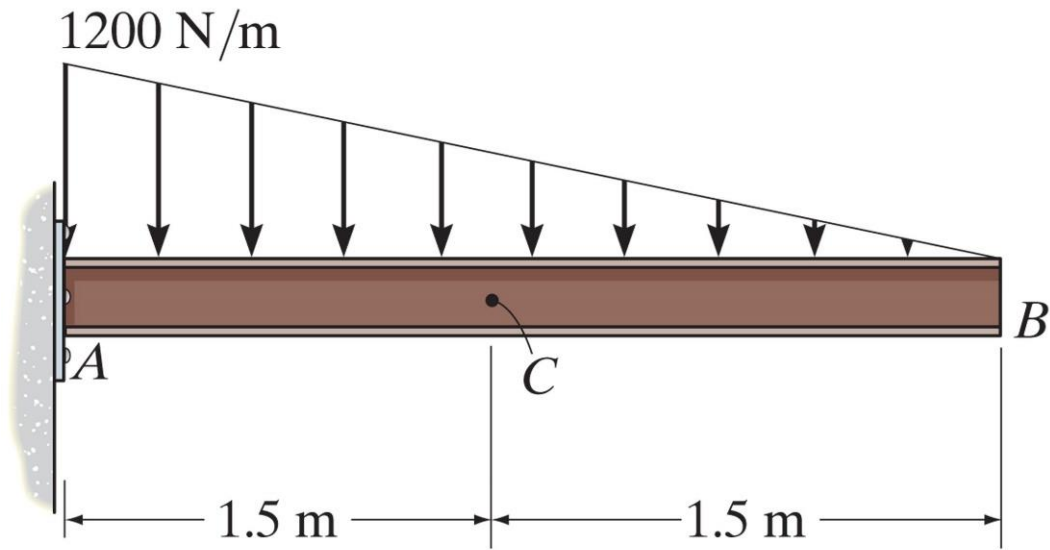
# Chapter 7: Internal Forces

## Main goals and learning objectives

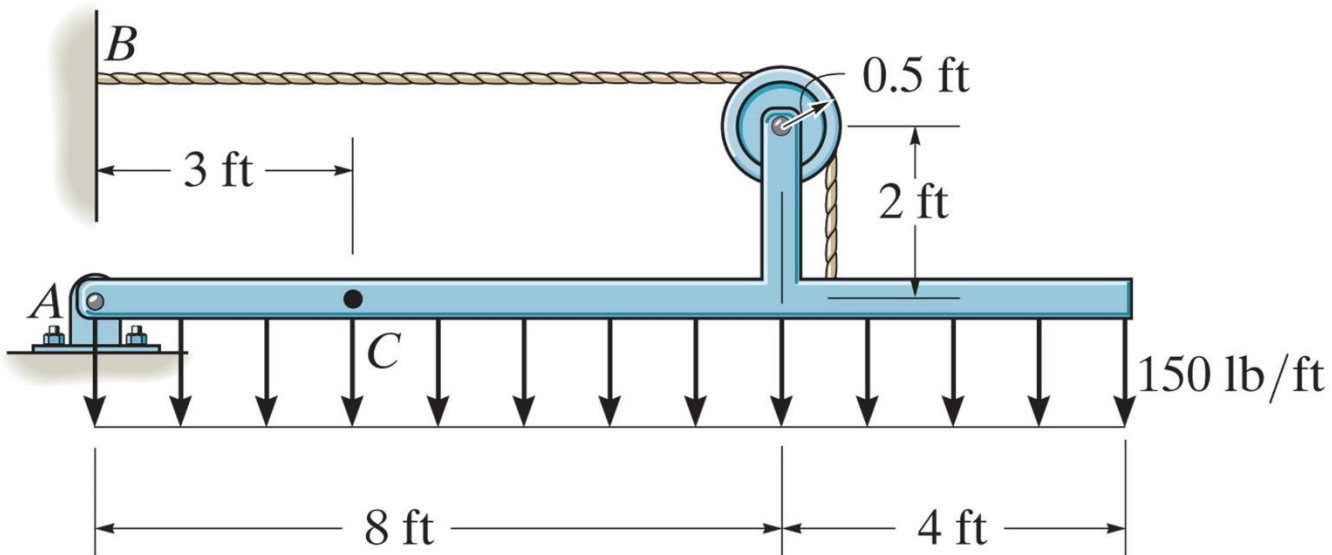
- Determine the internal loadings in members using the method of sections
- Generalize this procedure and formulate equations that describe the internal shear and moment throughout a member



If a force of 20 lb is applied to the handles, determine the internal shear force and moment at point C.

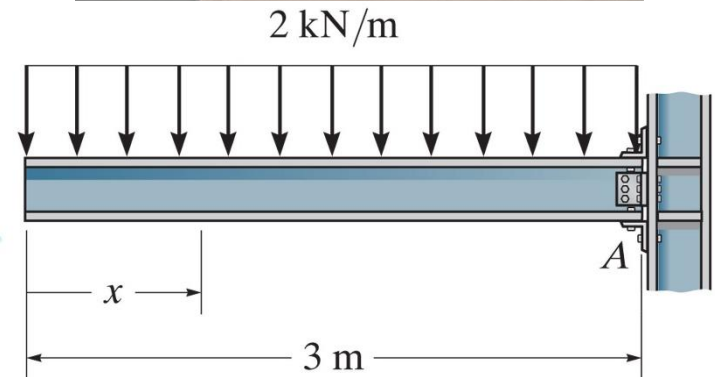
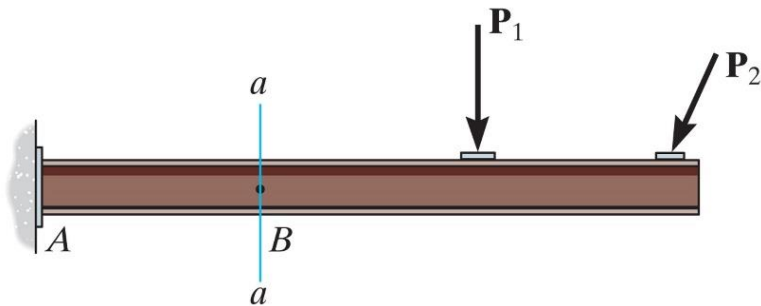
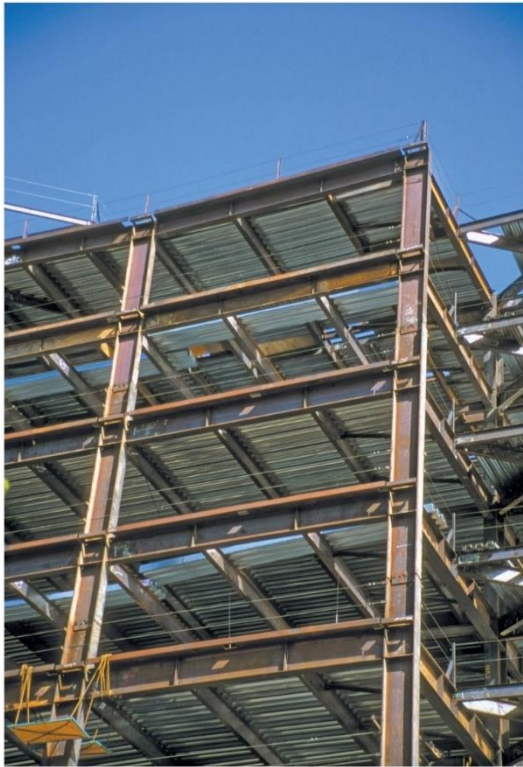


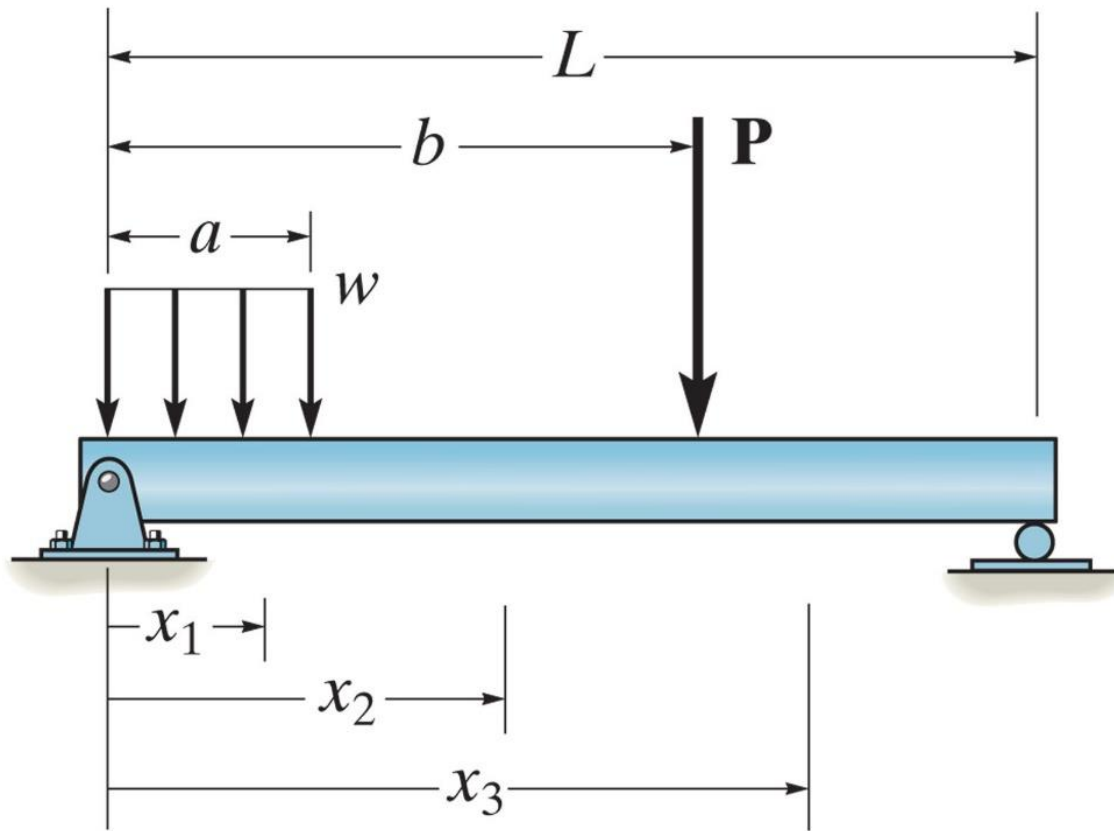
Determine the normal force, shear force, and bending moment at C of the beam.



Determine the internal forces at point C.

# Internal loadings developed in structural members





Draw the shear and moment diagrams for the simply supported beam.