

Announcements

- Check your grades on compass (-- ≠ 0)
- Quiz 3 starts tomorrow

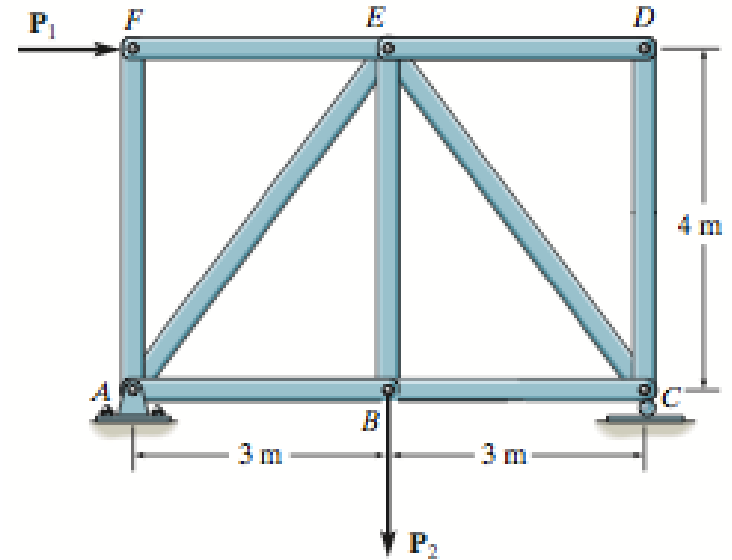
☐ Upcoming deadlines:

- Friday (10/12)
 - WA
- Tuesday (10/16)
 - PL HW



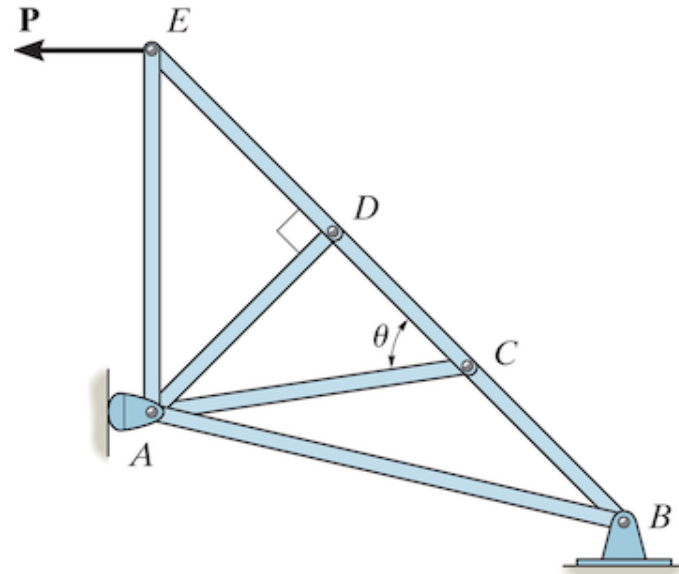
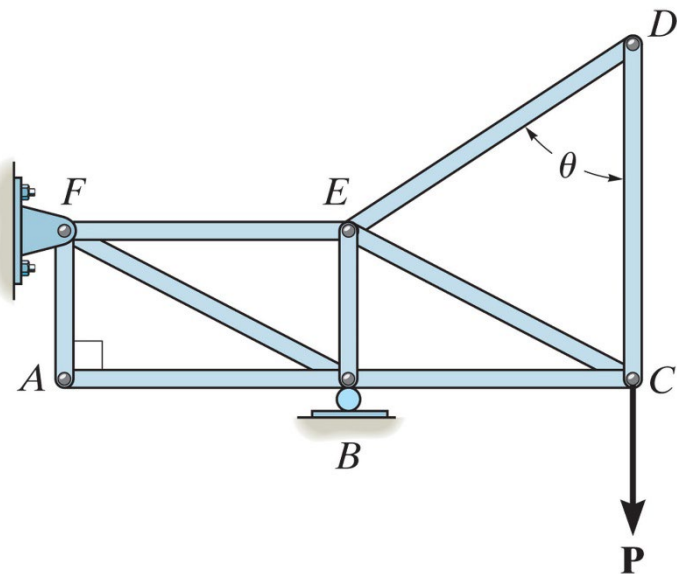
Objectives

- Truss Analysis
- Zero-force member
- Method of section

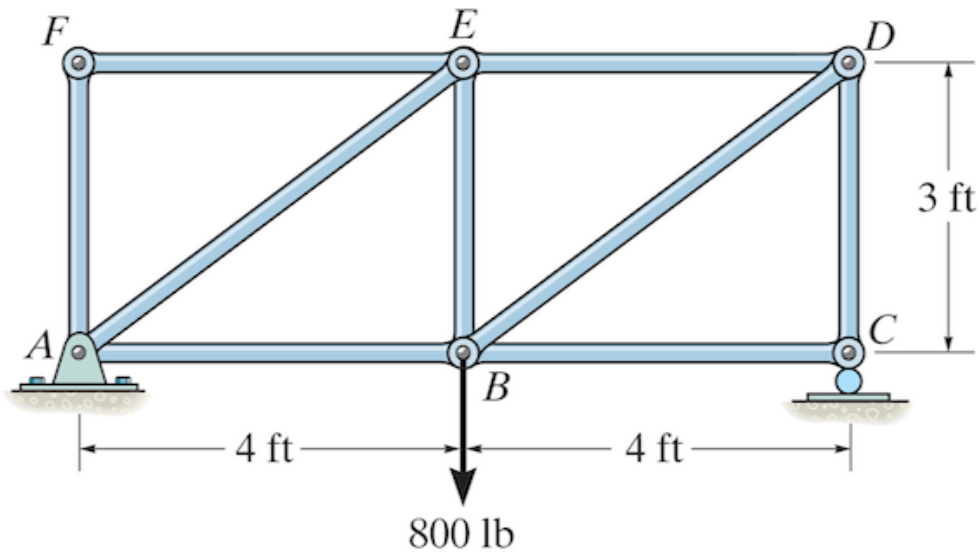
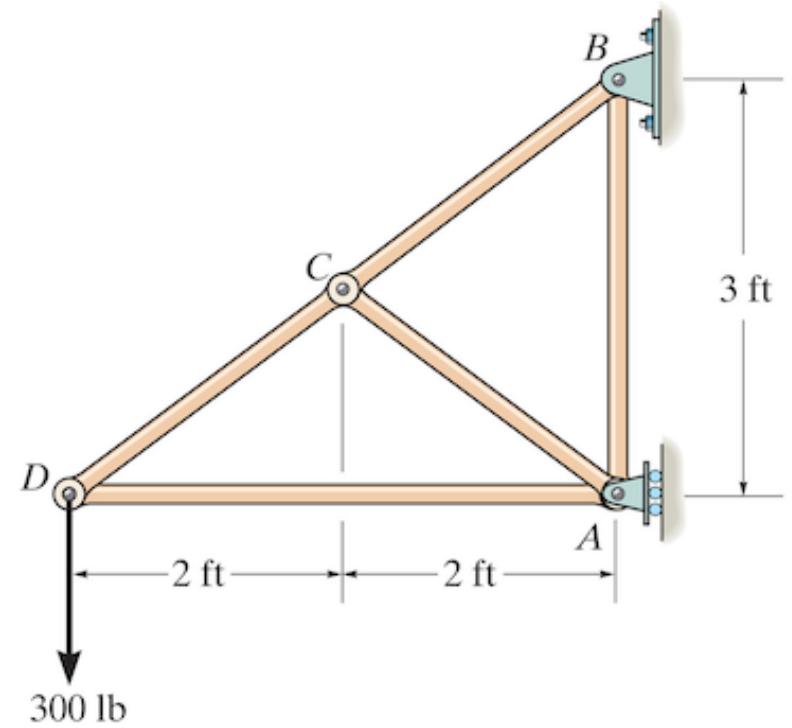


Zero-force members

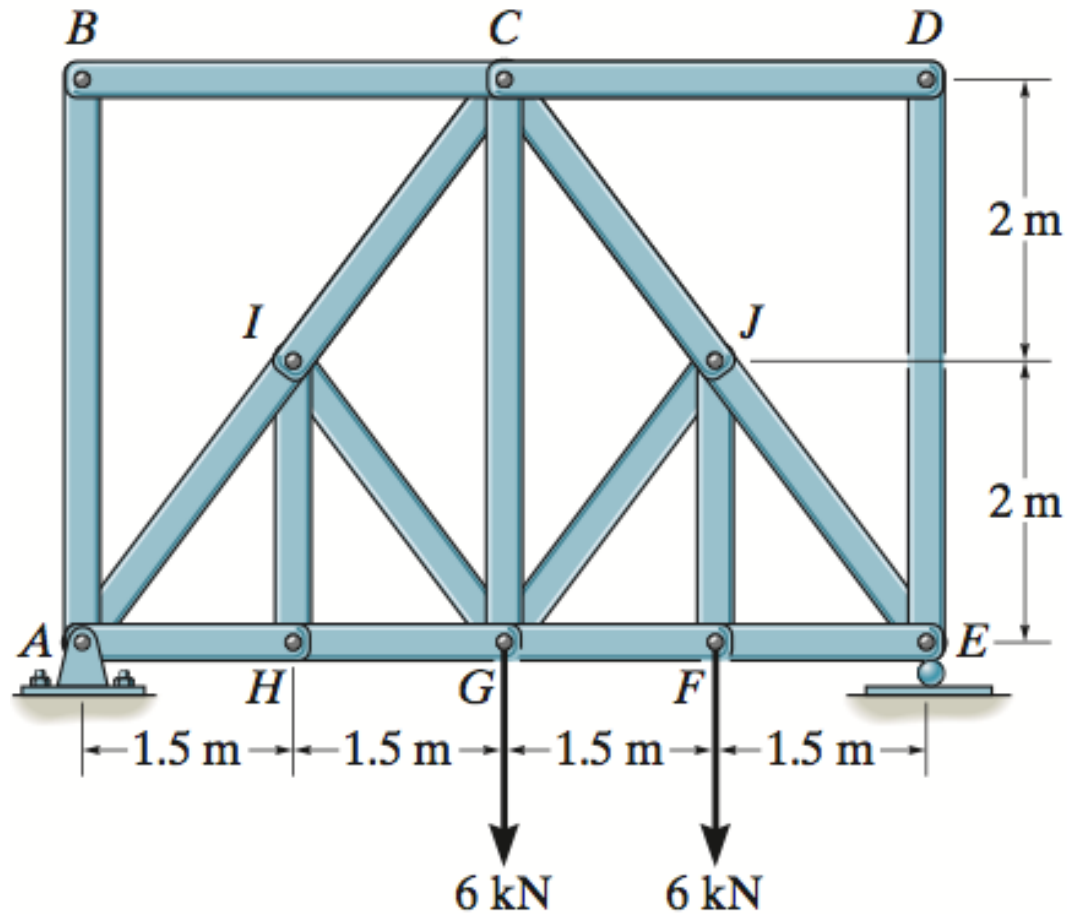
- Particular members in a structure may experience no force for certain loads.
- Zero-force members are used to increase stability
- Identifying members with zero-force can expedite analysis.



Which are zero-force members?



How many zero-force members are in the truss?



Internal forces

- How are two-force members being held together internally?

Tension

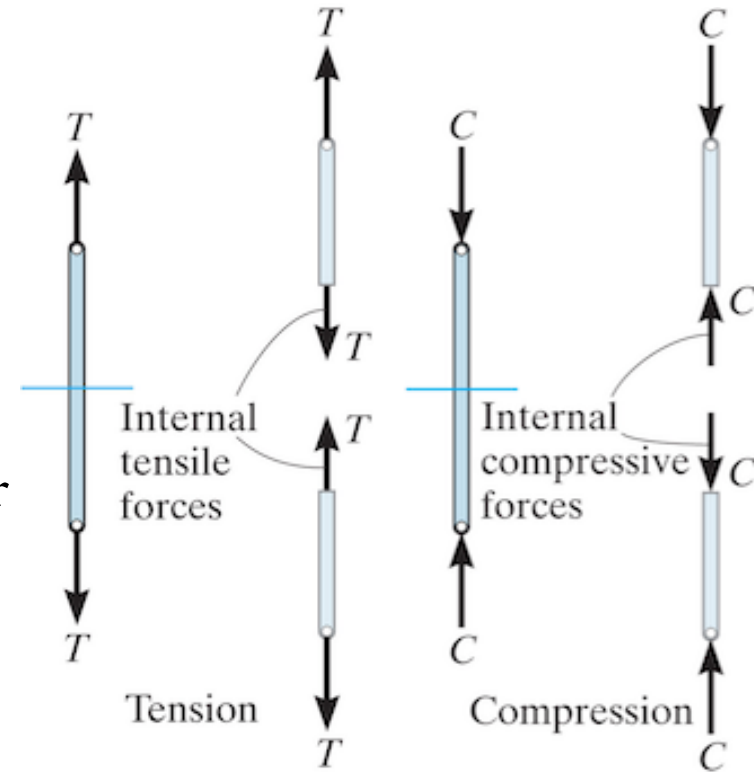
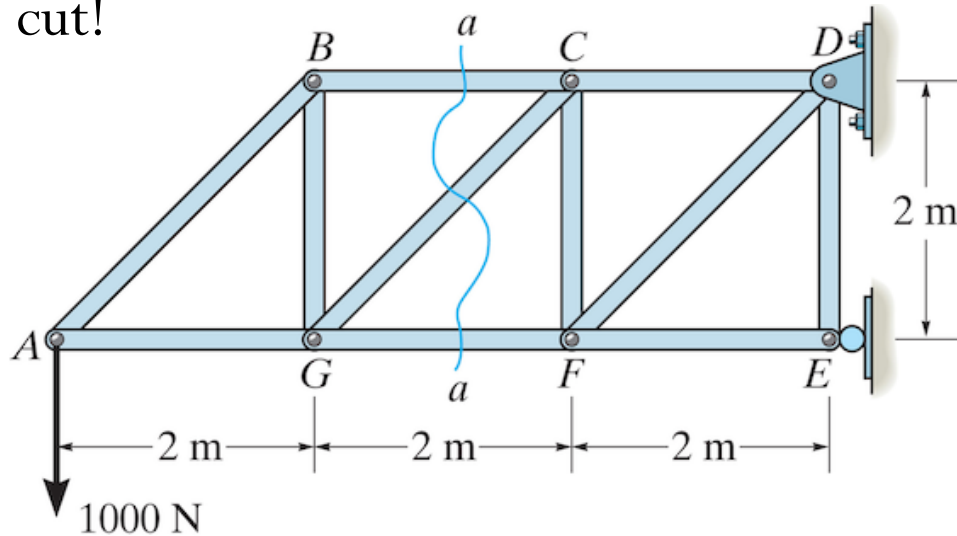


Compression

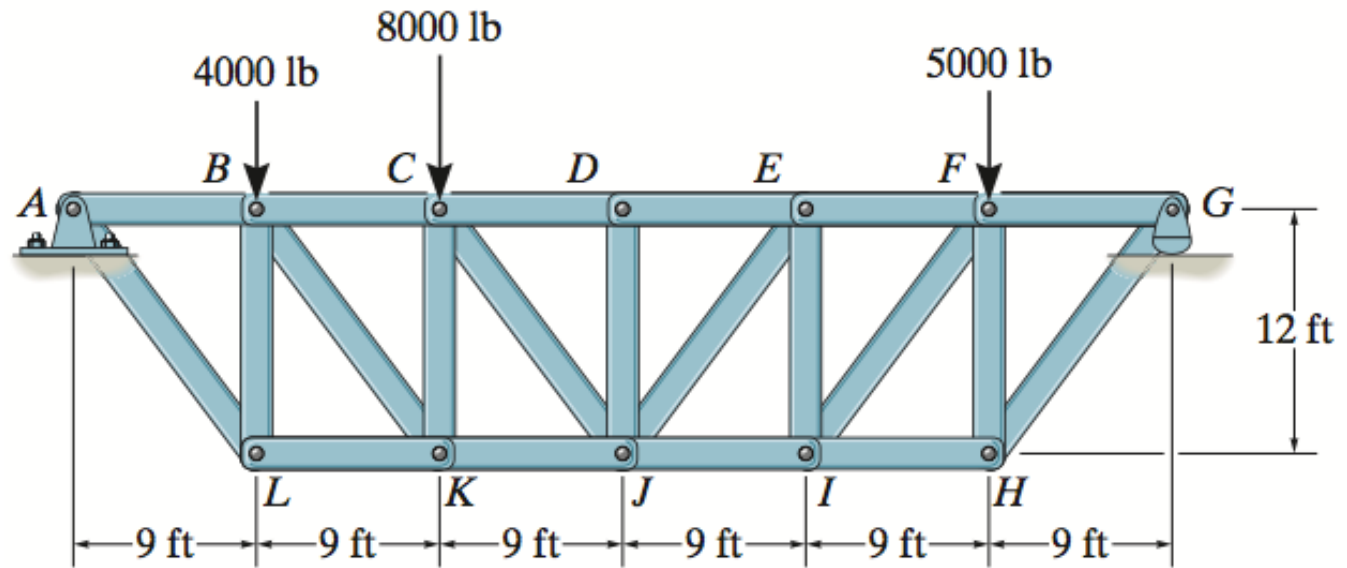


Method of sections

- Determine external support reactions
- “Cut” the structure at a section of interest into two separate pieces and set either part into force and moment equilibrium
- Be aware of number of unknowns after your cut!



Determine the force in members EI and JI of the truss which serves to support the deck of a bridge. State if these members are in tension or compression.



Determine the force in members BF , BG , and AB , and state if the members are in tension or compression.

