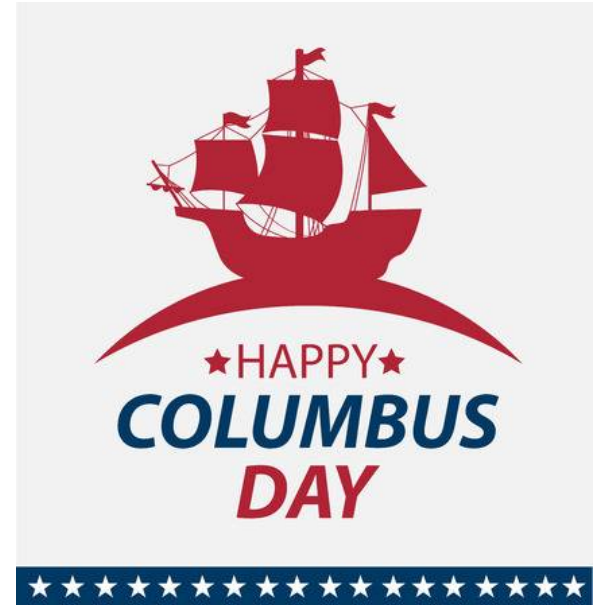# Announcements

- Quiz 3 this week.
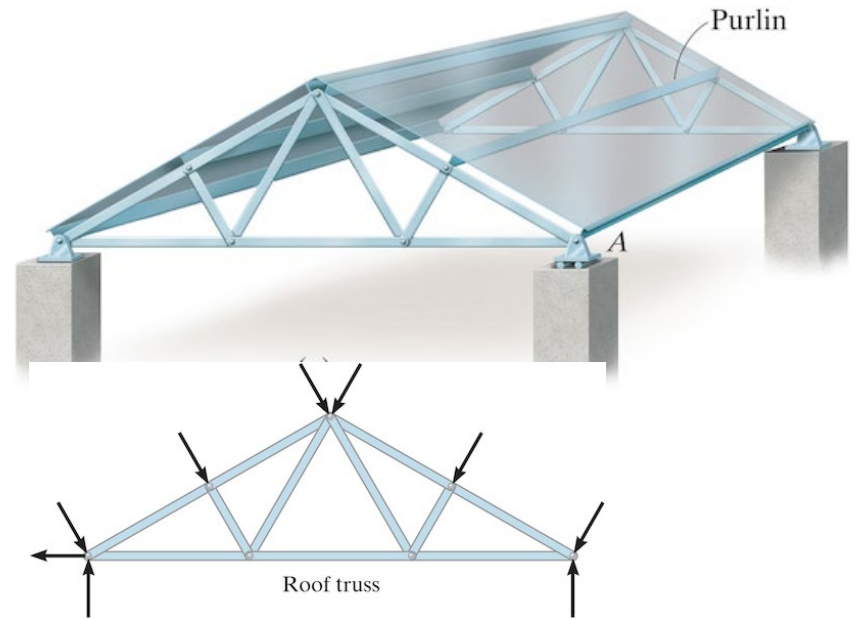
❑ Upcoming deadlines:

- Tuesday (10/9)
  - PL HW
- Friday (10/12)
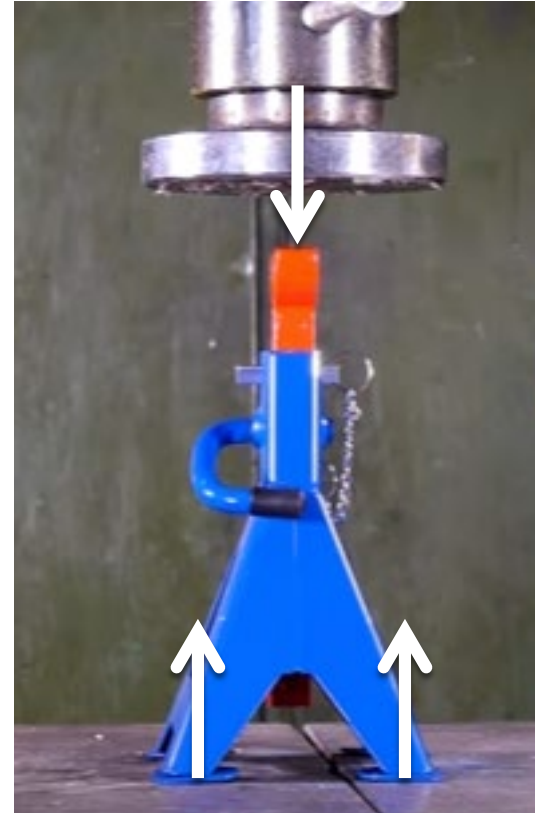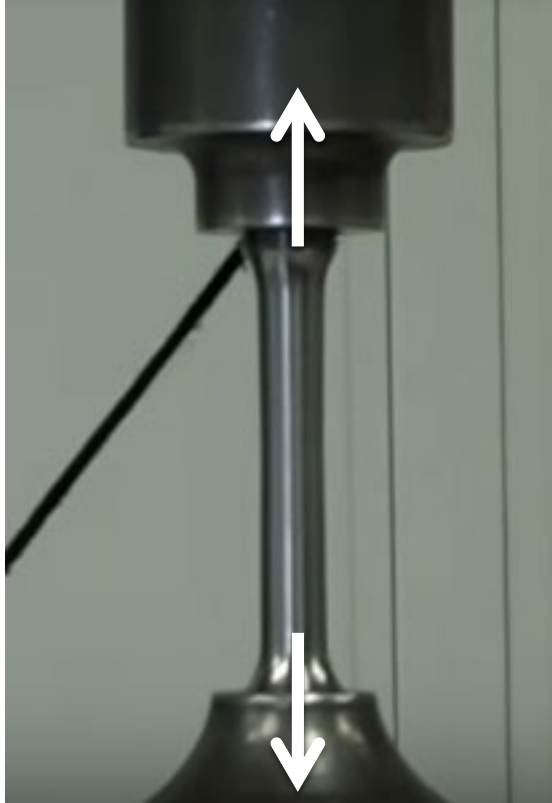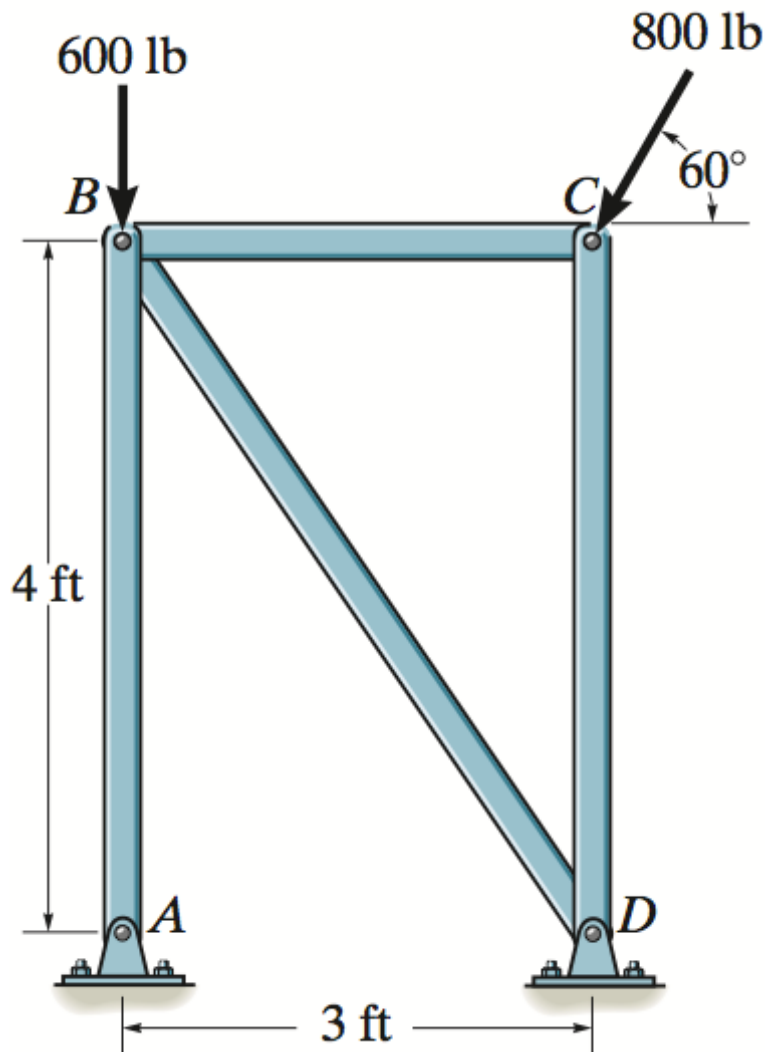 - WA

Objectives

- Truss Analysis

  - Method of joints/pins example

  - Zero force member

Roof truss

Tension vs. Compression

Rigid bodies respond differently to tension versus compression.
(YouTube Clips)

600 lb

800 lb

B

C

60°

4 ft

A

D

3 ft

Find the forces in member BD.

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We will determine the force in each member of the truss and indicate whether the members are in tension or compression.
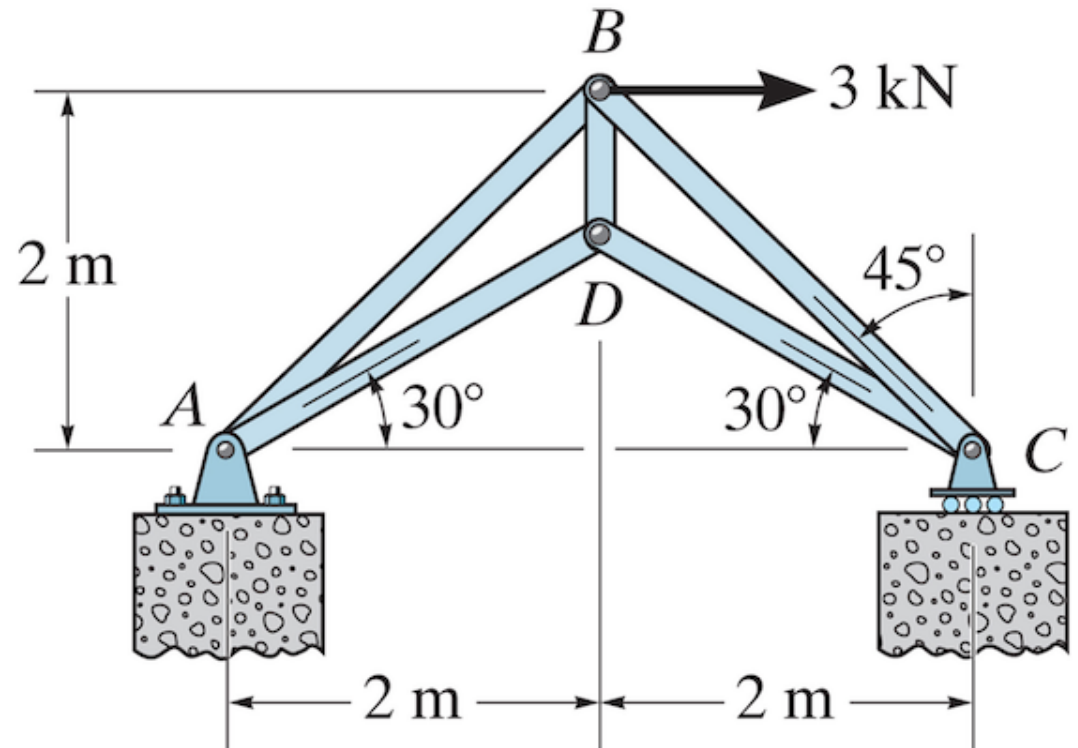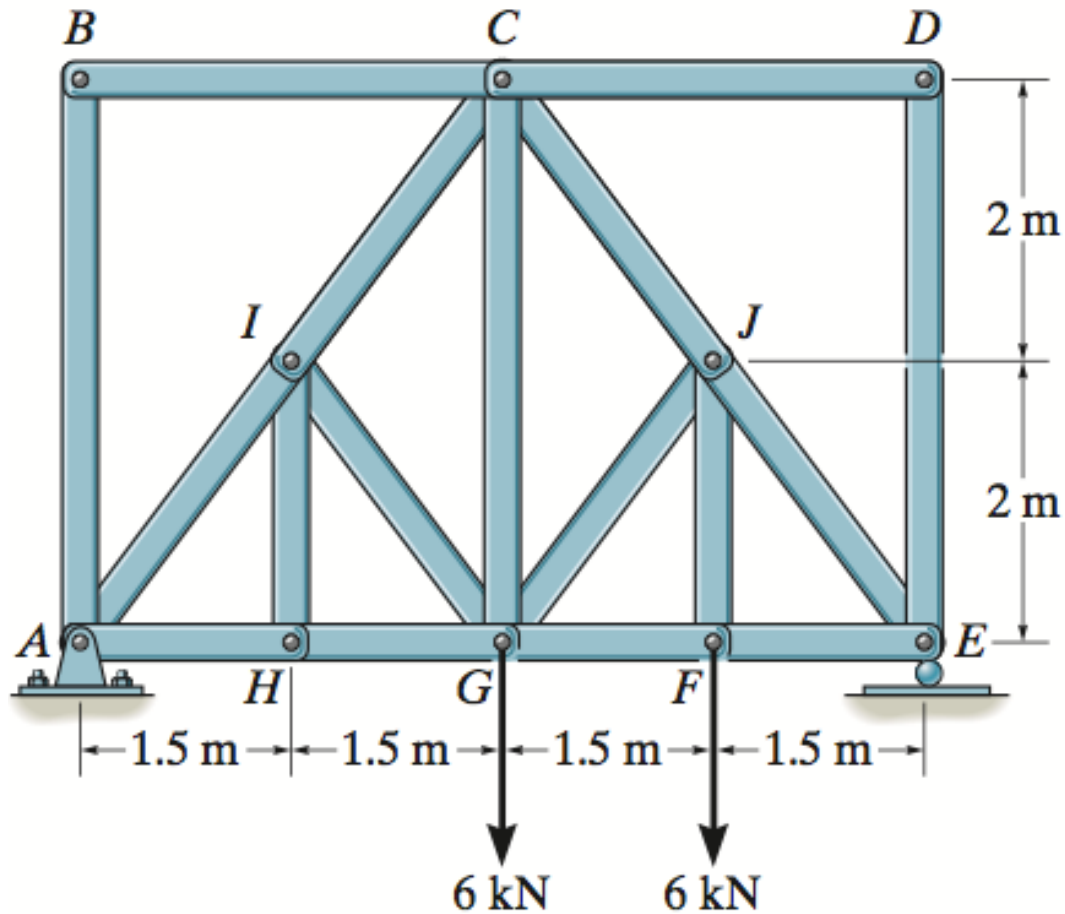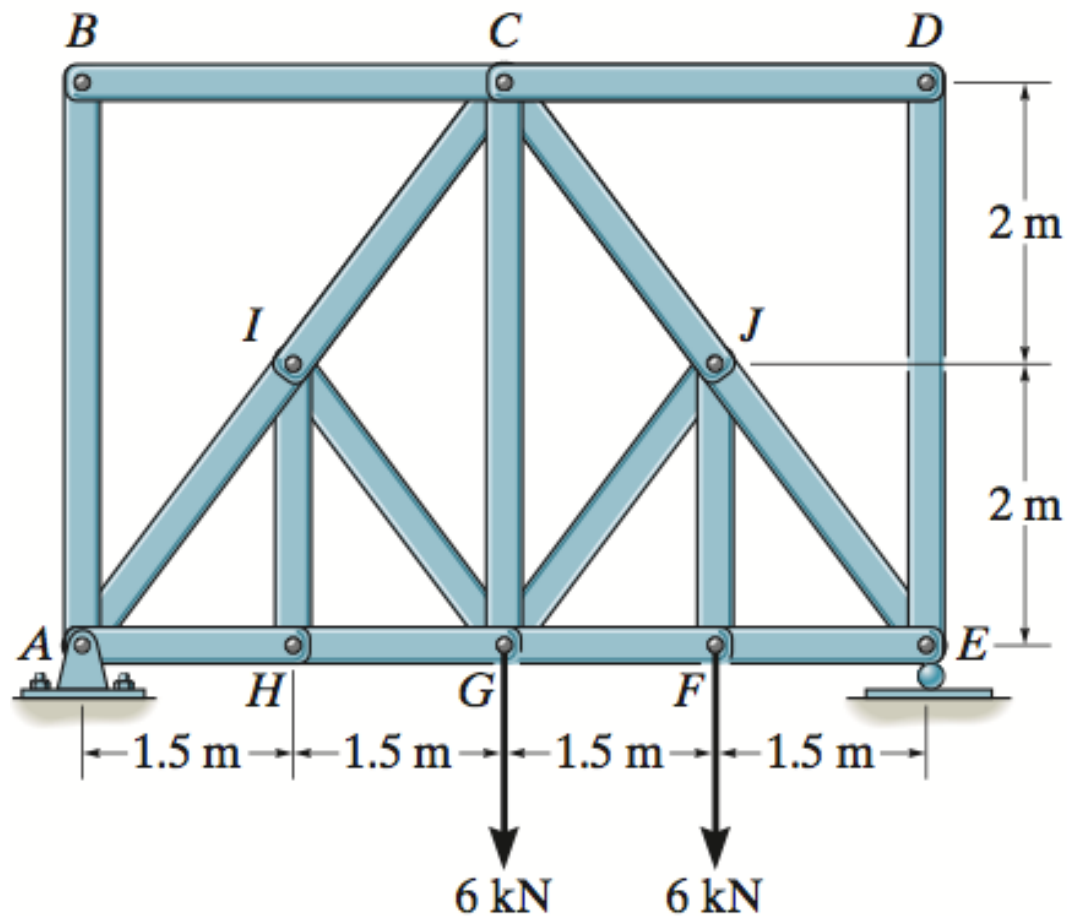
Zero-force members

- 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.
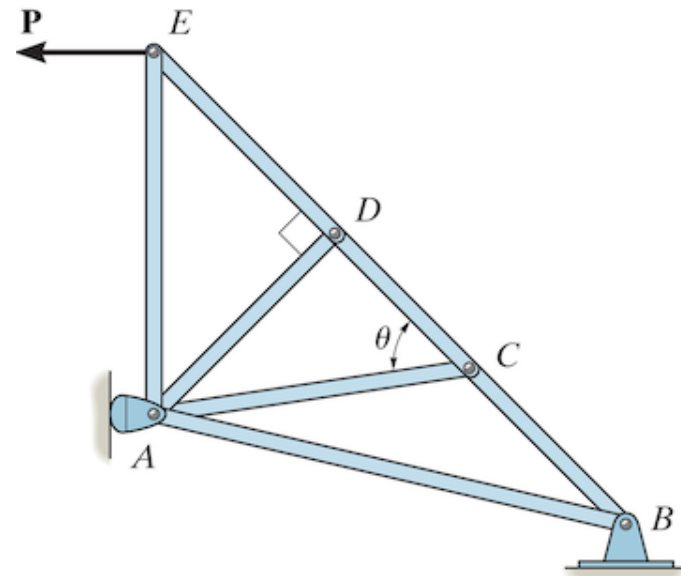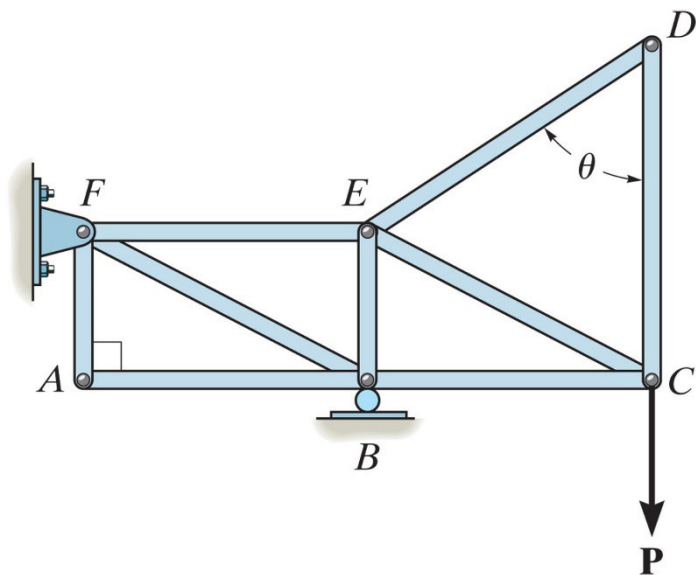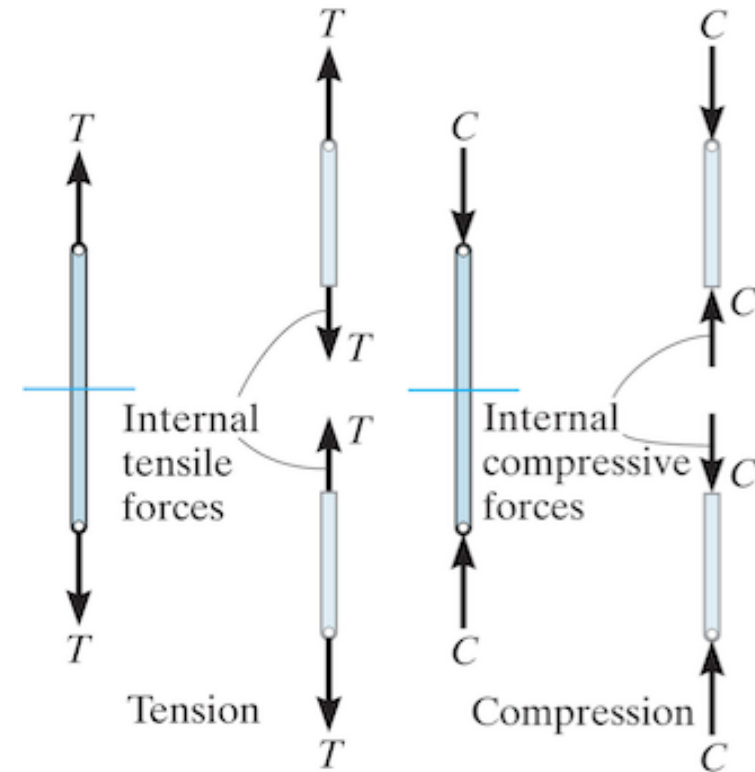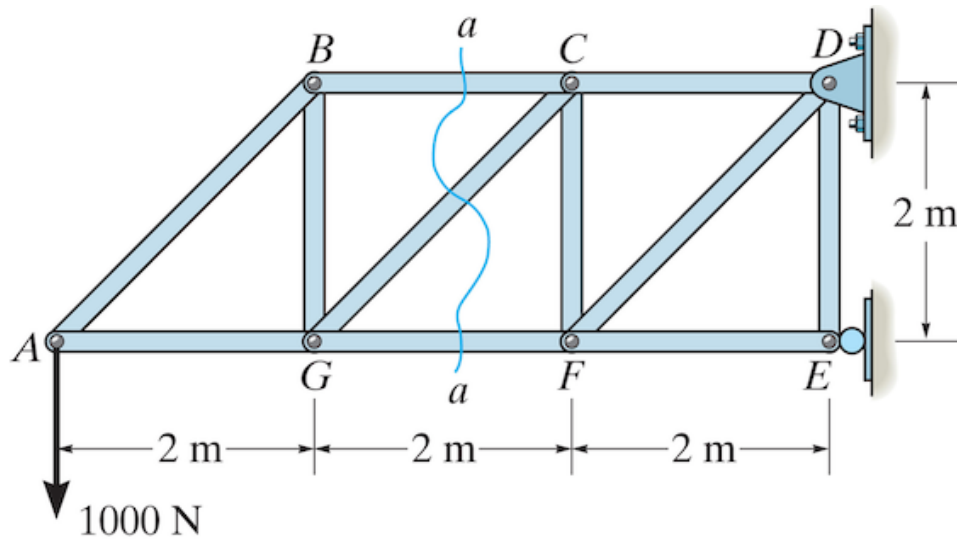
Identify all zero-force members in the truss.

Find the force in member *EF* and *GH*.

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 (your cut should be such that you have up to three unknowns)

Determine the force in member GC and GE of the truss and state if the members are in tension or compression.

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