## Hints

Trusses: Know how to use both methods. Start by finding reactions, unless the truss is cantilevered. Look for zero force members.   Make sure free body diagrams are consistent.

Frames and Machines: Draw consistent free body diagrams. Count unknowns to identify what to solve first. Plan a solution strategy first. Number the free body diagrams. Indicate which FBD you are using to develop each equilibrium equation. Negative answer indicate assumed direction is wrong.
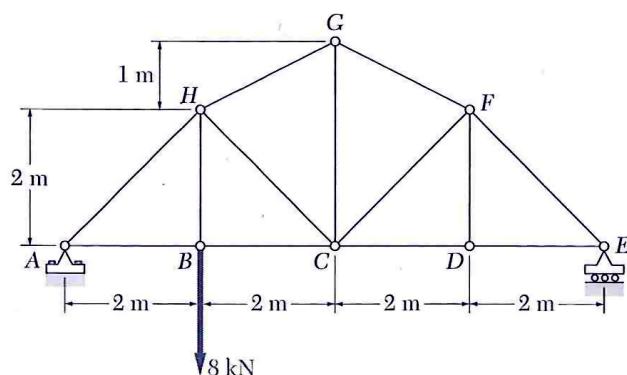
Truss: Method of Joints

Determine the forces acting in all members of the truss shown. Indicate tension or compression. Use the Method of Joints.
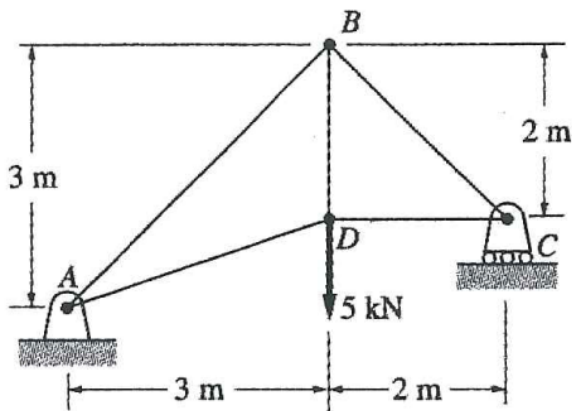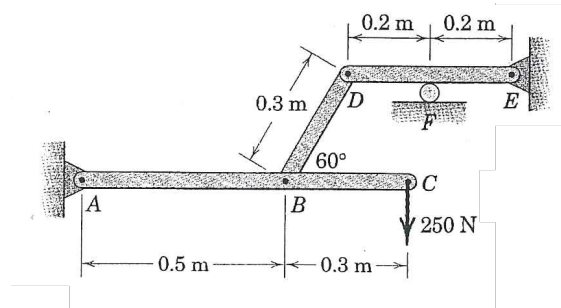

Truss: Method of Sections

Determine the forces in members BC, HG, and HC of the truss shown. Indicate tension or compression. Use the method of sections.

Frame   Determine all forces acting on the frame shown

Machine   The back hoe is controlled by three hydraulic cylinders, and in the particular position shown, the hoe can apply a horizontal force $P = 2000$ lb. Neglect the weights of the members and compute the forces supported by the pins at A and E.