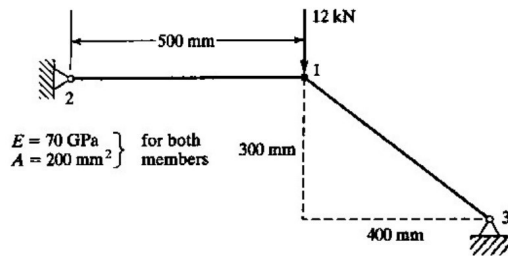


Assignment 1: Direct Stiffness

Verify your results with SAP2000.

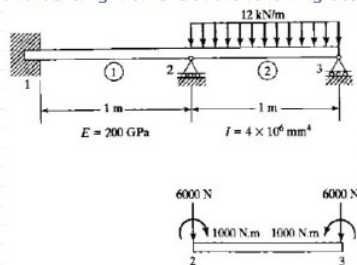
1.

- ◆ Determine the displacements at the node 1 and stresses in the elements of the following truss.



2.

- ◆ Determine the displacements at the nodes and calculate shear force and bending moment of the following beam.



3.

- ◆ Determine the displacements at the node 1 and stresses in the elements of the following frame. $A = 10 \text{ mm} \times 20 \text{ mm}$.

