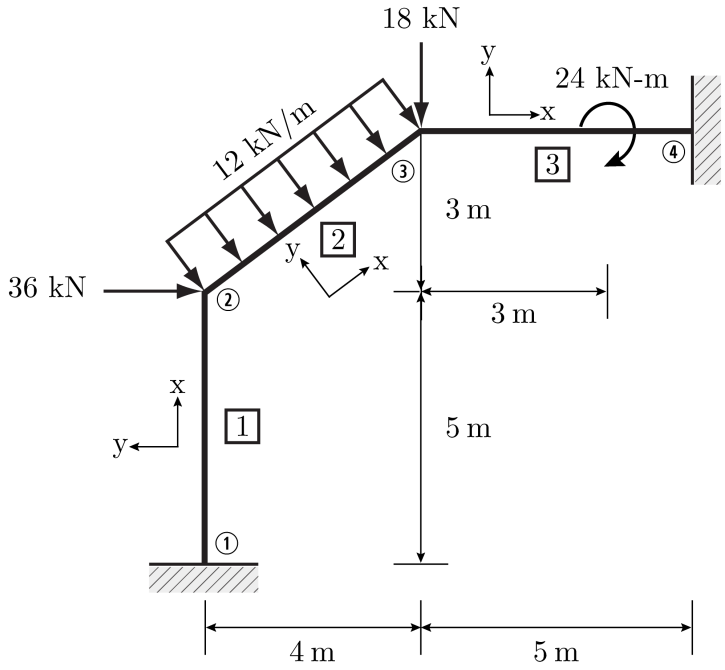
CE 525 Fall 2026 HW#5

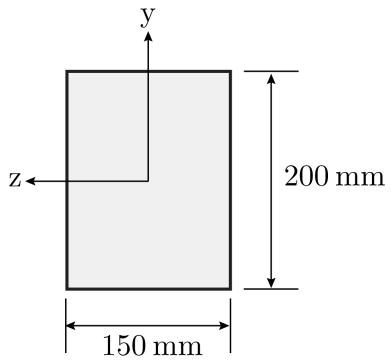
Due Thursday, October 22, at the beginning of class

1. For the frame shown determine joint displacements/rotations, and support reactions, using the Matrix Displacement Method:

   a. (10 pts) By hand and computer programming.

   b. (10 pts) Using SAP2000.





E = 30 GPa for all members

2. For each member:

   a. (10 pts) Draw axial force, shear force, and bending moment diagrams.

   b. (5 pts) Calculate the maximum normal stress (σ) and indicate location.

   c. (5 pts) Calculate the maximum shear stress (τ) and indicate location.