

ANSYS - Plane Frame

Plane Frame

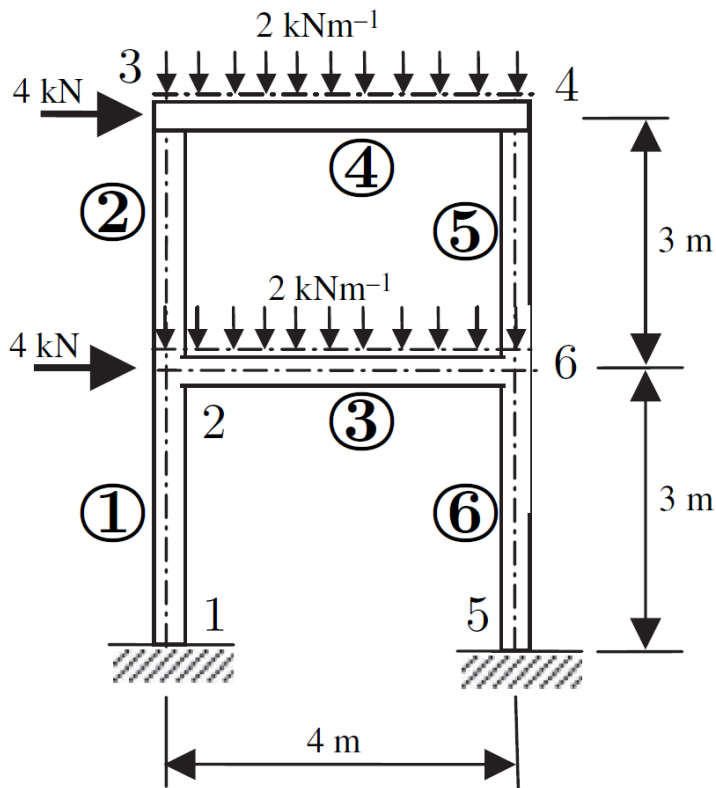
Problem Specification

This is **not** a step-by-step ANSYS tutorial. Rather, it states the problem to be solved and provides some tips and guidance on solving it using ANSYS Mechanical. Go through the [truss](#) and [beam](#) tutorials before attempting this problem.

Consider the plane frame structure in the figure below. All bars have cross-section properties $EI = 2.5e7 \text{ N-m}^2$ and $EA = 2.5e9 \text{ N}$.

Find:

- The deformed shape of the frame
- The location in the frame that undergoes the maximum total deflection
- The maximum shear force and axial force in each span
- The bending moment at each span endpoint



Solution Tips

Mathematical Model

Numerical Solution Strategy

[Go to all ANSYS Learning Modules](#)