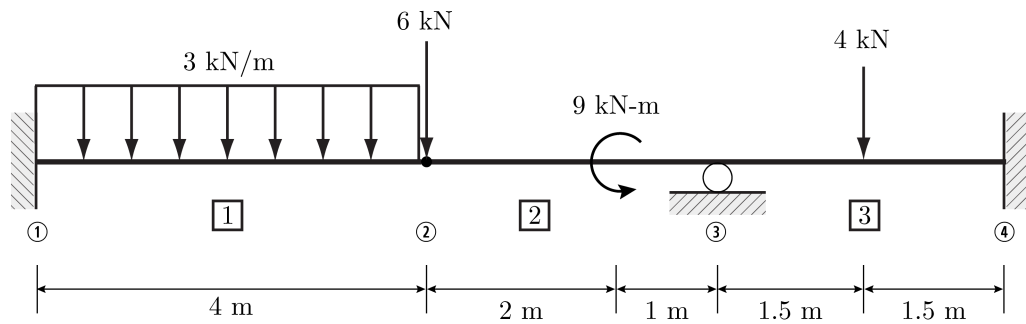


CE 325 Spring 2026 HW#8
Due Friday, April 17, by 5:00 pm ET

1. For the beam shown below determine joint displacements/rotations, support reactions, and shear force and bending moment diagrams, using the Matrix Displacement Method:

- a. (10 pts) By hand
- b. (10 pts) Using Python
- c. (10 pts) Using SAP2000



$E = 20 \text{ GPa}; I = 6.75e7 \text{ mm}^4$ for all members