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Exercise #7: MDF systems

Problem 1

Using the definition of stiffness and mass influence coefficients, formulate the equations of motion for the three-story shear frame with lumped masses shown in the figures below. The beams are rigid in flexure, and the flexural rigidity of the columns is as shown. Neglect the axial deformations in all elements.

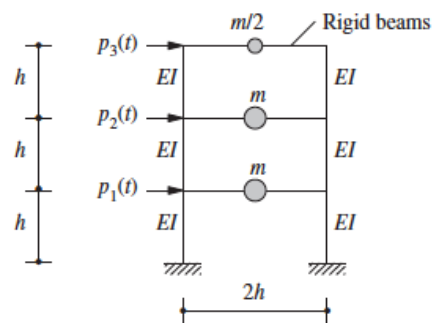


Figure 1.1