

$$E_I = E_2 = 100 \text{ GPa}$$

 $b_I = b_2 = 4 \text{ cm}; h_I = h_2 = 15 \text{ cm} (I = bh^3/12)$
 $A_I = A_2$
 $L_1 = 3 \text{ m}, L_2 = 3 \text{ m}$
 $q_{y'} = 1 \text{ kN/m}, q_{x'} = 1 \text{ kN/m} \text{ on member } 12$