

Problem 2.7-2

- (a) Let AE/L be the same for each bar of the plane truss in Fig. 2.5-2. Remove load P . Using the method of Eq. 2.7-6, impose the following displacements at node 1: $u_1 = c$ (where c is a small number), and $v_1 = 0$. Determine v_3 and the x and y components of load applied at node 1.
- (b) Use the results of part (a) in Eq. 2.5-10 to determine support reactions at nodes 2 and 3.
- (c) Show that the forces of parts (a) and (b) place the truss in static equilibrium.