Solve Logan text problem 3.27 using the Matlab code provided in class, which is adapted from the text "The Finite Element Method Using MATLAB," by Young W. Kwon and Hyochoong Bang

3.27 Determine the displacement components at node 3 and the element forces for the plane truss shown in Figure P3–27. Let $A = 3 \text{ in}^2$ and $E = 30 \times 10^6$ psi for all elements. Verify force equilibrium at node 3.

