

**FIGURE P4-17**

Problems 4-55 to 4-57 An aircraft overhead bin mechanism - dimensions in inches

- 4-55 For the linkage in Figure P4-17, calculate the maximum CW rotation of link 2 from the position shown. What angles do link 3 and link 4 rotate through for that excursion of link 2?
- 4-56 Write a computer program or use an equation solver such as *Mathcad*, *Matlab*, or *TKSolver* to calculate and plot the position of the coupler point *P* of the linkage in Figure P4-17 with respect to the *XY* coordinate system as a function of the angle of link 2 with respect to the *XY* system. The position of the coupler point *P* on link 3 with respect to point *A* is:  $p = 15.00$ ,  $\delta_3 = 0^\circ$ .
- 4-57 For the linkage in Figure P4-17, calculate the coordinates of the point *P* in the *XY* coordinate system if its coordinates in the *xy* system are (2.71, 10.54).