

**FIGURE P3-4**

Problems 3-15 to 3-18

- 3-15 Figure P3-4 shows a non-Grashof fourbar linkage that is driven from link O_2A . All dimensions are in centimeters (cm).
- Find the transmission angle at the position shown.
 - Find the toggle positions in terms of angle AO_2O_4 .
 - Find the maximum and minimum transmission angles over its range of motion by graphical techniques.
 - Draw the coupler curve of point P over its range of motion.
- 3-16 Draw the Roberts diagram for the linkage in Figure P3-4 and find its two cognates. Are they Grashof or non-Grashof?
- 3-17 Design a Watt-I sixbar to give parallel motion that follows the coupler path of point P of the linkage in Figure P3-4.
- 3-18 Add a driver dyad to the solution of Problem 3-17 to drive it over its possible range of motion with no quick return. (The result will be an 8-bar linkage.)