



FIGURE 3-33

Approximate constant velocity, draglink driven slider-crank sixbar mechanism⁽²²⁾

7-61 Find the acceleration of the slider in Figure 3-33 (p. 142) for the position shown if $\theta_2 = 110^\circ$ with respect to the global X-axis assuming a constant $\omega_2 = 1$ rad/sec CW.

- a. Using a graphical method.
- †b. Using an analytical method.

†7-62 Write a computer program or use an equation solver such as *Mathcad*, *Matlab*, or *TKSolver* to calculate and plot the angular acceleration of link 4 and the linear acceleration of slider 6 in the sixbar slider crank linkage of Figure 3-33 as a function of the angle of input link 2 for a constant $\omega_2 = 1$ rad/sec CW. Plot A_c both as a function of θ_2 and separately as a function of slider position as shown in the figure.

† These problems are suited to solution using *Mathcad*, *Matlab*, or *TKSolver* equation solver programs.