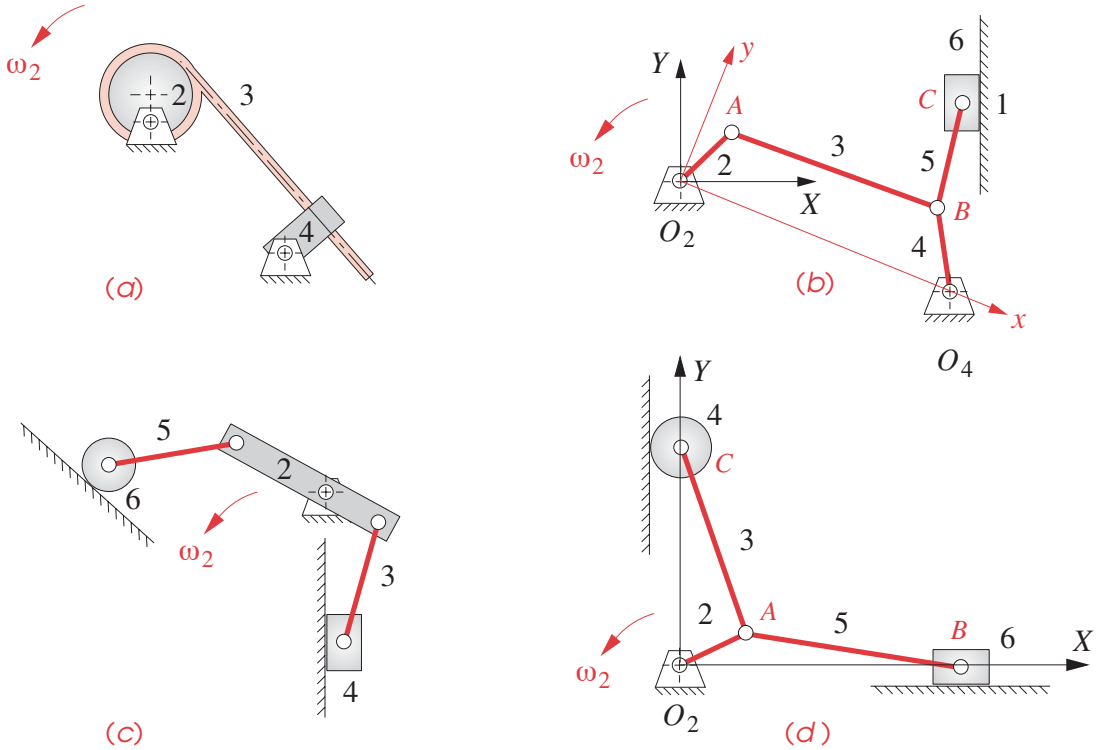

FIGURE P6-6

Problems 6-13, 6-21, and 6-22

6-13 Find all the instant centers of the linkages shown in Figure P6-6.

6-21 The linkage in Figure P6-6b has $L_1 = 61.9$, $L_2 = 15$, $L_3 = 45.8$, $L_4 = 18.1$, $L_5 = 23.1$ mm. θ_2 is 68.3° in the *xy* coordinate system, which is at –23.3° in the *XY* coordinate system. The *X* component of O_2C is 59.2 mm. For the position shown, find the velocity ratio $V_{I5,6}/V_{I2,3}$ and the mechanical advantage from link 2 to link 6.

a. Using the velocity difference graphical method.
b. Using the instant center graphical method.

6-22 Repeat Problem 6-21 for the mechanism in Figure P6-6d, which has the dimensions: $L_2 = 15$, $L_3 = 40.9$, $L_5 = 44.7$ mm. θ_2 is 24.2° in the *XY* coordinate system.