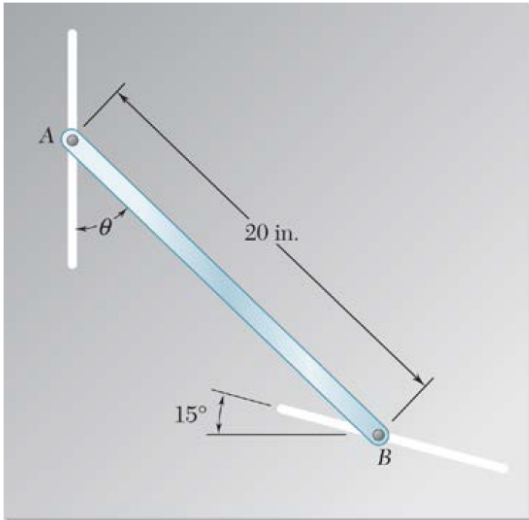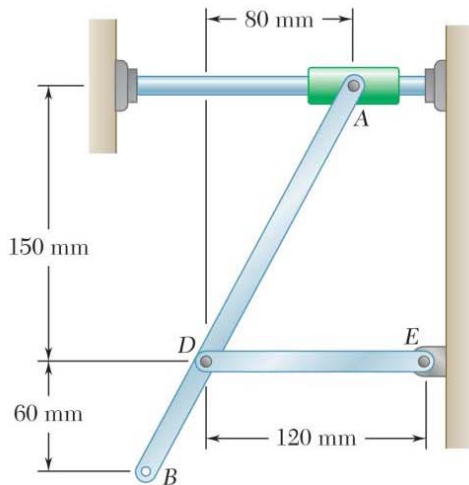# HW #9 – Chapter 15

PROBLEM 15.39

The motion of rod AB is guided by pins attached at A and B which slide in the slots shown. At the instant shown, $\theta = 40°$ and the pin at B moves upward to the left with a constant velocity of 6 in./s. Determine (a) the angular velocity of the rod, (b) the velocity of the pin at end A.
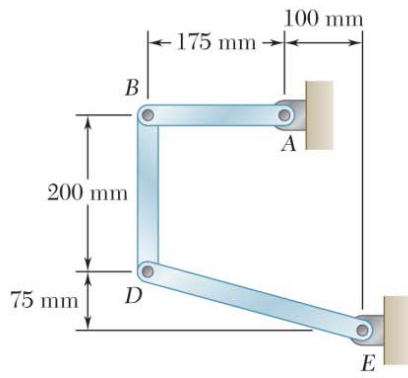

PROBLEM 15.55

Knowing that at the instant shown the velocity of collar A is 900 mm/s to the left, determine (a) the angular velocity of rod ADB, (b) the velocity of Point B.

PROBLEM 15.62
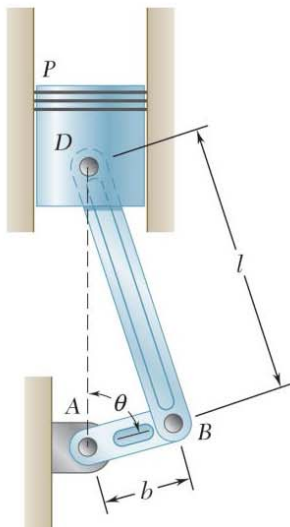
In the engine system shown $l = 160$ mm and $b = 60$ mm. Knowing that crank AB rotates with a constant angular velocity of 1000 rpm clockwise, determine the velocity of the piston P and the angular velocity of the connecting rod when $\theta = 60°$.

PROBLEM 15.64

In the position shown, bar AB has an angular velocity of 4 rad/s clockwise. Determine the angular velocity of bars BD and DE.