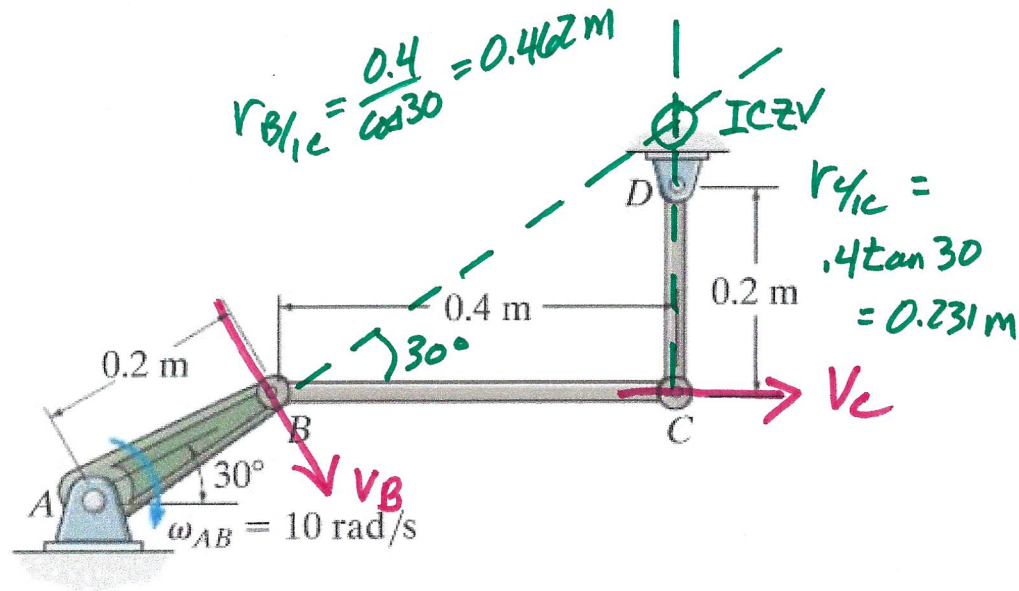


Rigid Body Kinematics IV – Problem 3

Determine the angular velocity of links BC and CD at the instant shown.

CLASSIFY MOTION

AB RAFA
BC GPM
CD RAFA



$$v_B = \omega_{AB} r_{AB} = 10(.2) = 2 \text{ mps}$$

$$v_B = \omega_{BC} r_{B/ic} \Rightarrow 2 = \omega_{BC} (.462) \quad \underline{\omega_{BC} = 4.33 \text{ rps}} \uparrow$$

$$v_C = \omega_{BC} r_{C/ic} = 4.33(0.231) = 1.0 \text{ mps} \rightarrow$$

$$v_C = \omega_{CD} r_{CD} \Rightarrow 1 = \omega_{CD} (.2) \quad \underline{\omega_{CD} = 5 \text{ rps}} \uparrow$$