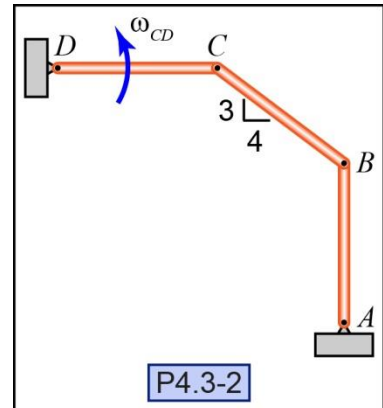


P4.3-2)^{fe} The bar linkage shown is set in motion by applying a counterclockwise angular velocity of 10 rad/s to bar CD . All links have the same length. Determine the angular velocity of bar AB at the instant represented in the figure.

Given:

Find:



Solution:

Velocity

Draw the direction of the velocities and angular velocities on the figure. Include a coordinate system.

Calculate the velocity of point C .

$$\mathbf{v}_C = \underline{\hspace{2cm}}$$

Determine the velocity of point B as a function of ω_{AB} .

$$\mathbf{v}_B(\omega_{AB}) = \underline{\hspace{2cm}}$$

Angular velocity

Use the relative velocity equation between points B and C to determine the angular velocity of link AB .

$$\omega_{AB} = \underline{\hspace{2cm}}$$