Q1 – 4 points

B moves to the right with a speed of v_B.

When $\theta < 45°$:
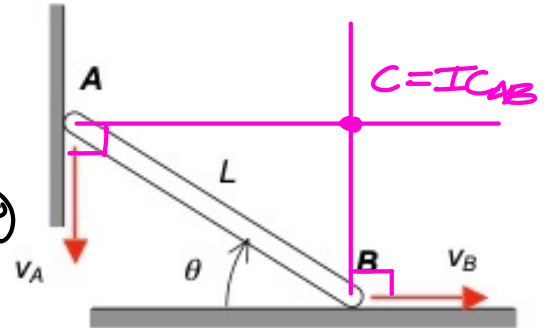
$\begin{cases} V_A = d_{cA}\, \omega_{AB} \\ V_B = d_{cB}\, \omega_{AB} \end{cases}$

a) $v_A = 0$

b) $v_A > v_B$

c) $v_A = v_B$

$\frac{V_A}{V_B} = \frac{d_{cA}}{d_{cB}} > 1 \; (\text{for } \theta = 45°)$

d) $v_A < v_B$

e)   Need to know more about problem.

$C = IC_{AB}$

L

V_A θ **B** V_B

Q2   Link OA rotates in the CW direction.

Q2.1 – 4 points

a) $\omega_{AB} = CW$

b) $\omega_{AB} = 0$

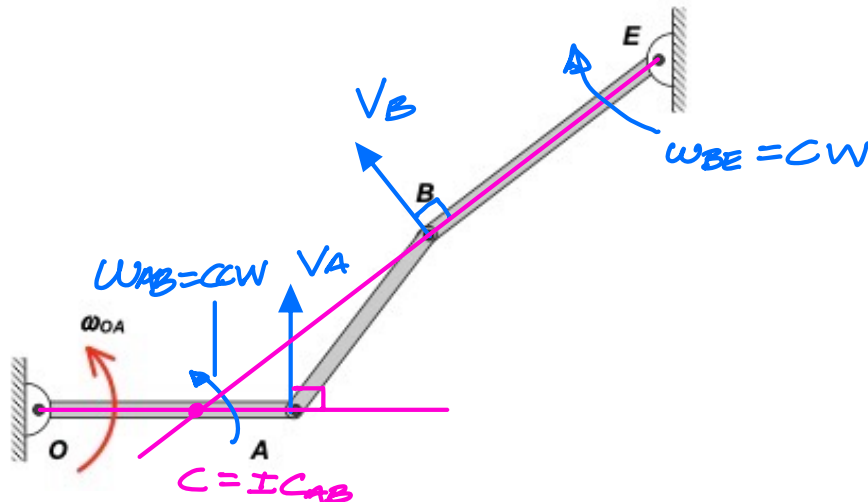c) $\omega_{AB} = CCW$

d)   Need to know more about problem.

Q2.2 – 4 points

a) $\omega_{BE} = CW$

b) $\omega_{BE} = 0$

c) $\omega_{BE} = CCW$

d)   Need to know more about problem.

V_B $\omega_{BE} = CW$

$\omega_{AB} = CCW$ V_A

ω_{OA}

$C = IC_{AB}$

Q1 – 4 points

Points A and B are on the same rigid body.
A moves along path shown with speed v_A.

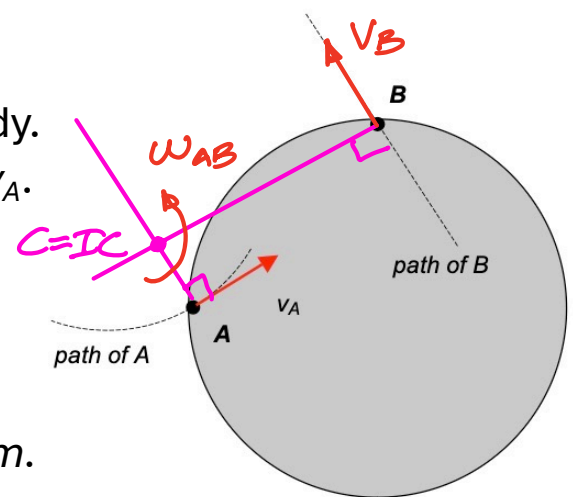a) $v_B = 0$

b) $v_B > v_A$

c) $v_B = v_A$

d) $v_B < v_A$

e) Need to know more about problem.

$$\begin{cases} v_A = d_{AC}\,\omega_{AB} \\ v_B = d_{BC}\,\omega_{AB} \end{cases}$$

$$\hookrightarrow \quad \frac{v_A}{v_B} = \frac{d_{AC}}{d_{BC}} < 1$$

Q2 Link AB rotates in the CW direction.

Q2.1 – 4 points

a) $\omega_{BD} = CCW$

b) $\omega_{BD} = 0$

c) $\omega_{BD} = CW$

d) Need to know more about problem.

Q2.2 – 4 points

a) $\omega_{ED} = CCW$

b) $\omega_{ED} = 0$

c) $\omega_{ED} = CW$

d) Need to know more about problem.