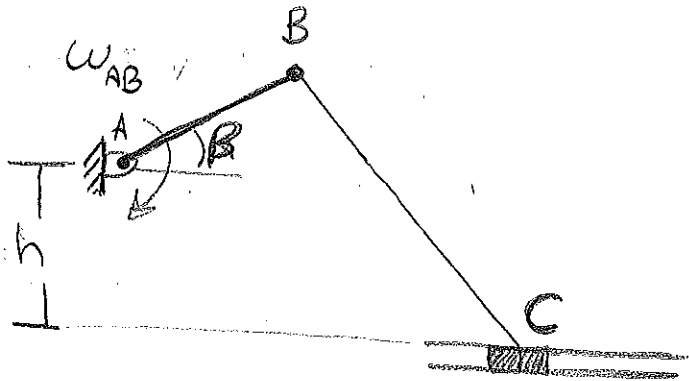


I. Find the angular acceleration of bar BC and the acceleration of slider C at the instant shown. C is a frictionless collar.



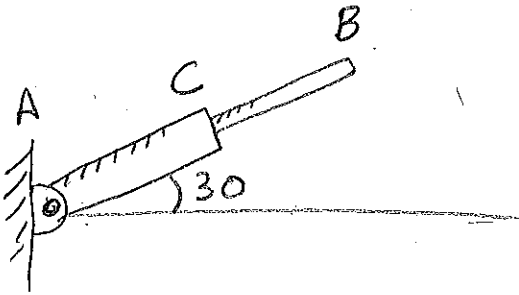
$$AB = 5 \text{ in}$$

$$h = 4 \text{ in}$$

$$\beta = 30^\circ$$

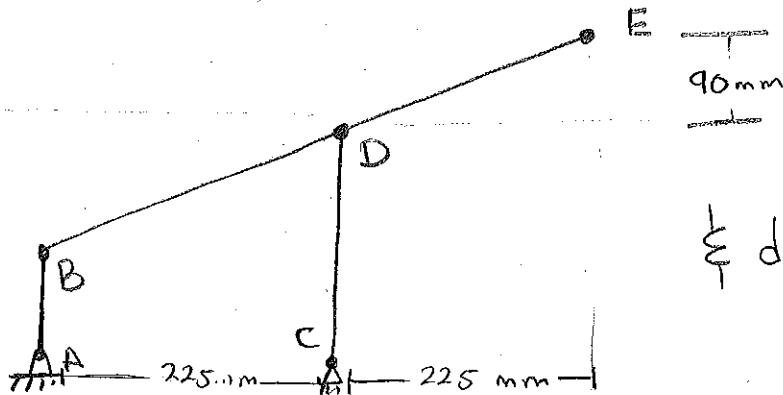
$$\omega_{AB} = 3 \text{ rad/s}$$

II. Find the velocity and acceleration of point B at the end of the robot arm. The arm rotates clockwise with an angular velocity of 0.08 rad/s while extending out with a velocity of 0.2 m/s .



III

90 mm
90 mm



If $\omega_{AB} = 6 \text{ rad/s}$, find

& draw vector $\vec{a}_D$