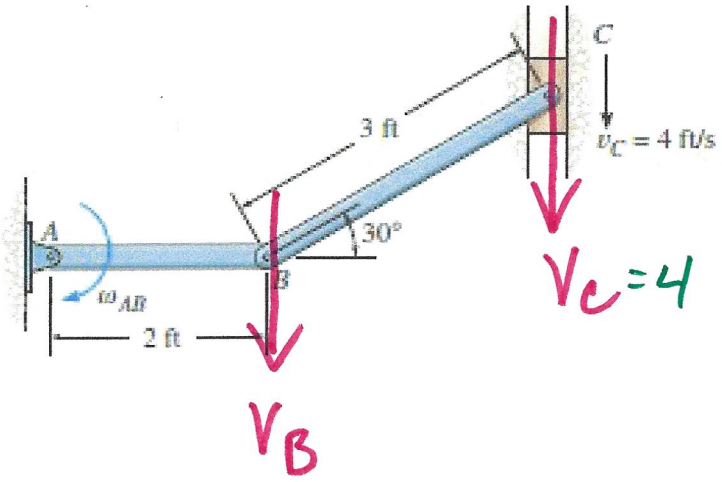
Rigid Body Kinematics IV – Problem 2 Alternate 1

If the block at C is moving downward at 4 ft/s, determine the angular velocity of bar AB at the instant shown.



CLASSIFY MOTION

BAR AB — RAFA
BAR BC — GPM
BLOCK C — TRANS

NO ICZV FOR BC (

$\therefore$ PURELY TRANSLATION $\therefore V_C = V_B$

IF $V_B = 4$ FPS

$V_B = \omega_{AB} r_{AB}$

$4 = \omega_{AB}(2)$

$\omega_{AB} = 2$ rps $\circlearrowleft$