

dynamics explanation

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1 question A

velocity of point b is defined as $\vec{V}_b = \vec{V}_a + \omega \times r_{b/a}$
by using the cross-product we can find that

$$\omega * r_{b/a} = [0, 0, -3]^T \times [0, -5, 0]^T = -6i \quad (1)$$

$$\vec{V}_b = -2i - 6i = -8i \quad (2)$$