

dynamics explanation

mohamedahmedahmedgamaleldin

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1 question A

$$\vec{V_{by}} = \vec{V_{ay}} + (\omega * \vec{r_b/a})_y$$

by using the cross-product we can find that

$$(\omega * \vec{r_b/a})_y = -3/4 * \cos(30) * 8 = -3 * \sqrt{3} \quad (1)$$

$$\vec{V_{ay}} = 0 \quad (2)$$

$$\vec{V_{by}} = -3 * \sqrt{3} \quad (3)$$