dynamics explanation

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1 question A

Coriolis acceleration(Ac) is defined as $\vec{A_c} = 2 * \omega * \vec{V_{rel}}$
by using the cross-product we can find that

$$\omega * \vec{V_{rel}} = 2 * [0, 0, 4]^T \times [0, -5, 0] \tag{1}$$

$$\vec{A_c} = 40i \tag{2}$$