← Back Lecture Comprehension, Rotation Matrices (Chapter 3.2.1, Part 2 of 2)
Practice Quis +30 min +3 total points ⊕ English ∨ Due Aug 26, 11:59 PM +0500

Ocngratulations! You passed!

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1. Which of the following is equivalent to $R_{\rm co}$, the representation of the orientation of the [c] frame relative to the (g) frame) Select all that apply: $R_{ab}R_{bc}$ Correct
 This is correct by the subscript cancellation rule. \square $R_{ab}R_{cb}^{T}$ \odot Correct R_{cb}^{-} is the inverse of R_{cb} which is equivelent to R_{bc} , so this is correct by the subscript cent $(R_{bc}^TR_{ab}^T)^T$ \bigcirc Correct Use the facts that $R_{ab}^{\rm T}=R_{ba}$ and $(R_1R_2)^{\rm T}=R_2^{\rm T}R_1^{\rm T}.$ $R_{ad}R_{db}R_{bc}$ 2. The metrix $R = \text{Rot}(\dot{x}, 90^{\circ}) = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 0 & -1 \\ 0 & 1 & 0 \end{bmatrix}$ represents the orientation R_0 of a famor-(\hat{p}) text has been exhibited by violating the \hat{p}) frame by 50 degrees about 18.35-xis. Now, given a matrix R_0 representing the orientation of \hat{p}) estables to \hat{p} , which of the following represents the orientation of a former (existive to \hat{p}). But the notisted about the \hat{p} -(\hat{p}) frame is \hat{p} -said by 50 degrees.
 ⊕ R_{cb}R
 ⊖ RR_{cb}
 \bigcirc Correct. R_a should be viewed as a representation of an orientation and R should be lieved as a rotation operator. Performing the appealson on the right means the operation is done in terms of the exes of the firms of the accord subscript, [b]. ... The models $R = \operatorname{Rod}(\frac{1}{2}, 00^\circ) = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 0 & -1 \\ 0 & 1 & 0 \end{bmatrix}$ represents the controller. R_0 of them (g) that has been eathered by ording the (g) frame by (g) degrees about to the law. In this, piece 1 models (g) and (g) and (g) in the (g) by (g) degrees about to the (g) such that (g) is a controller of (g) in the (g) by (g) in the (g) in 1/1 point

Correct. H_a should be viewed as a representation of an orientation and H_a should be viewed as a rotation operator. Performing the operation on the left means the operation is done in terms of the axes of the finame of the final subsority, (§).