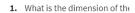
Congratulations! You passed!

Grade received 100% To pass 80% or higher

Go to next item

1.	What is the dimension of the matrix adjoint representation $[\mathrm{Ad}_T]$ of a transformation matrix T (an element of $SE(3)$)? \bigcirc 3x3 \bigcirc 4x4 \bigcirc 6x6	1 / 1 point
	\bigcirc Correct The adjoint representation $[\mathrm{Ad}_{T_{ab}}]$ of a transformation matrix T_{ab} can be used to change the frame of representation of a twist (or a screw), i.e., $\mathcal{V}_a = [\mathrm{Ad}_{T_{ab}}]\mathcal{V}_b$, so it must be 6x6.	
2.	A 3-vector angular velocity ω can be represented in matrix form as $[\omega]$, an element of $so(3)$, the set of 3x3 skew-symmetric matrices. Analogously, a 6-vector twist $\mathcal{V}=(\omega,v)$ can be represented in matrix form as $[\mathcal{V}]$, an element of $se(3)$. What is the dimension of $[\mathcal{V}]$?	1 / 1 point
	O 3x3	



O 3x3

4x46x6

- O 4x4
- 6x6

⊘ Correct

The adjoint represent ${\cal V}_a = [{
m Ad}_{T_{ab}}] {\cal V}_b$, so

- 1. What is the dimension of the
 - O 3x3
 - O 4x4
 - 6x6

⊘ Correct

The adjoint represent ${\cal V}_a = [{
m Ad}_{T_{ab}}] {\cal V}_b$, so

- 2. A 3-vector angular velocity ι twist $\mathcal{V} = (\omega, v)$ can be re
 - O 3x3
 - 4x4
 - O 6x6