

HW1.5. Find the coordinates of a point in a different frame in 2D

The position and orientation of frame 6 in the coordinates of frame 9 are:

$$p_6 = \begin{bmatrix} 0.12626036 \\ 0.48217070 \end{bmatrix}$$

$$R_{96} = \begin{bmatrix} -0.99586956 & 0.09079551 \\ -0.09079551 & -0.99586956 \end{bmatrix}$$

A point q in the coordinates of frame 6 is:

$$q_6 = \begin{bmatrix} 0.35313718 \\ 0.46583079 \end{bmatrix}$$

Python

```
import numpy as np

p_6 = np.array([[0.12626036], [0.48217070]])
R_96 = np.array([[-0.99586956, 0.09079551],
                 [-0.09079551, -0.99586956]])
q_6 = np.array([[0.35313718], [0.46583079]])
```

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Find q in the coordinates of frame 9:

$q_9 =$

matrix (rtol=0.01, atol=1e-08)

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Save & Grade
Single attempt

Save only

Additional attempts available with new variants



Homework 1

Assessment overview

Total 30/30 points:

Score: 100%

Question

Value: 1

History: 1 1

Awarded points: 1/1

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