

Q & A for Hwk 3 (version 2)

I am a little confused about the problem 3.(b) of homework3. In the figure, we can see the theta should be the angle between [001] and the arbitrary vector. But the question says it is an angle between [100] and the vector. I want to make sure if there is a typo or I misunderstood the question. Thank you!

Good question. Look at what is written more carefully because it explains how direction cosines are evaluated for unit vectors, i.e., each component is the cosine of the angle between the vector and each axis taken in turn.

For question 2, I am treating the rotation matrix (Alpha) as, effectively, the Euler angle rotation matrix wherein only the first angle is treated as theta and the second and third are zero. For the "general expression," do you just want the code used for this and an explanation of my reasoning? Then, for b, would it be sufficient to create and draw some arbitrary tensor T and it's rotated / transformed version?

No. Look up the general expression for a rotation (transformation) matrix based on angle and axis.

- for question 5, should we provide the altered .py file for each part or is it sufficient to copy and paste the modified lines of code?

I recommend that you include the whole code with whatever changes you make because it's not very long.