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Courses » Virtual Reality Engineering

Announcements

Course

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## Unit 5 - Week 3

### Course outline

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- Converting and multiplying rotations
- Converting and multiplying rotations, contd
- Homogeneous transforms
- The chain of viewing transforms
- Eye transforms
- Eye transforms, contd
- Canonical view transform
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## Assignment 3

The due date for submitting this assignment has passed. **Due on 2018-02-14, 23:59 IST.**

### Submitted assignment

1) In terms of Rotation matrix(R) multiplications, if there are two such matrices R1 and R2 and a **1 point** point  $P=(x, y, z)$  so we multiply it in such a way that  $P'=R1P$  and  $P''=R2P'$ , so what is the value of  $P''$

- R1R2P
- R2R1P
- NONE OF THE ABOVE
- BOTH ARE CORRECT

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*R2R1P*

2) A homogeneous transformation matrix is represented as T and its inverse is represented as  $T^{-1}$ . Pick out the correct statements about them. **1 point**

- $T$  is Rotation then Translation
- $T^{-1}$  Is Inverse translation then inverse rotation.
- $T$  is translation then rotation
- $T^{-1}$  is inverse rotation then inverse translation.

**No, the answer is incorrect.**

**Score: 0**

**Accepted Answers:**

*$T$  is Rotation then Translation*

*$T^{-1}$  Is Inverse translation then inverse rotation.*

3) Which one is the correct sequence of the chain of transformations? **1 point**

Where,

Trb = Rigid Body Transformation

Teye= Eye Transformation

Tcan= Canonical Transformation

Tvp= View-port Transformation.

- Trb -> Teye -> Tcan -> Tvp
- Teye -> Trb -> Tcan -> Tvp
- Teye-> Tcan -> Tvp-> Trb
- Tvp ->Trb -> Teye -> Tcan

**No, the answer is incorrect.**

**Score: 0**

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VIDEOS](#)**Accepted Answers:***Trb -> Teye -> Tcan -> Tvp*4) For the eye transformations, which one is incorrect? 1 point

- $x^u = u^x \times z^u$
- $y^u = z^u \times x^u$
- $z^u = -c^u$
- $y^u = u^u$

**No, the answer is incorrect.****Score: 0****Accepted Answers:** *$y^u = u^u$* 5) Pick out the incorrect statement about Viewport Transform 1 point

- The lower two rows of the matrix is an identity matrix
- Tvp converts the [-1, 1] range values into the pixel coordinates.
- The diagonal elements are 1
- Viewport Transformation's output is the direct display.

**No, the answer is incorrect.****Score: 0****Accepted Answers:***The diagonal elements are 1*[Previous Page](#)[End](#)

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