

Unit 5 - Week 3: Modeling Transformation

Course outline
How does an NPTEL online course work?
Week 0: Prerequisite
Week 1 : Introduction
Week 2: Object Representation
Week 3: Modeling Transformation
<input type="radio"/> Lec 9: Space representation methods
<input checked="" type="radio"/> Lec 10: Introduction to modeling transformations
<input type="radio"/> Lec 11: Matrix representation and composition of transformations
<input type="radio"/> Lec 12: Transformations in 3D
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<input type="radio"/> Feedback form
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Assignment 3

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-10-07, 23:59 IST.

1) At the time of defining the objects, its shape, size, and position is not important. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. True

2) Match the following (for homogeneous coordinate system) 1 point

- I. $P_h(x_h, y_h, 0)$ A. is considered to be infinity
II. $P_h(0, 0, 0)$ B. is not allowed
III. $P_h(1, 1, 1)$ C. is allowed

- a. I-A, II-B, III-C
 b. I-B, II-A, III-C
 c. I-A, II-C, III-B
 d. I-C, II-A, III-B

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. I-A, II-B, III-C

3) In order to obtain composite matrix we multiply basic matrix in sequence. In this case 1 point

- a. we follow right-to-left rule in forming the sequence
 b. we follow left-to-right rule in forming the sequence
 c. we can follow either right-to-left or left-to-right rule in forming the sequence
 d. any order can be considered in forming the sequence, as we are multiplying the matrices

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. we follow right-to-left rule in forming the sequence

4) We can create a _____ grid to represent a 3D space. 1 point

- a. Pixel
 b. Voxel
 c. Frequency
 d. Time

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. Voxel

5) With shearing transformation, we cannot change shape of an object. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. False

6) When same scaling factor is used along both X and Y direction it is called 1 point

- a. Uniform scaling
 b. Differential scaling
 c. Equilateral scaling
 d. Perpendicular scaling

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. Uniform scaling

7) Matrix multiplication is commutative 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. False

8) There are _____ basic modeling transformations. (Fill in the blank with correct number).

Hint

No, the answer is incorrect.
Score: 0

Accepted Answers:
(Type: Numeric) 4

1 point

9) We need homogeneous coordinate system to represent modeling transformations as linear equations. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
b. False

10) Representation of transformations in equation form is not very useful in developing modular graphics packages/libraries. 1 point

- a. True
 b. False

No, the answer is incorrect.
Score: 0

Accepted Answers:
a. True