

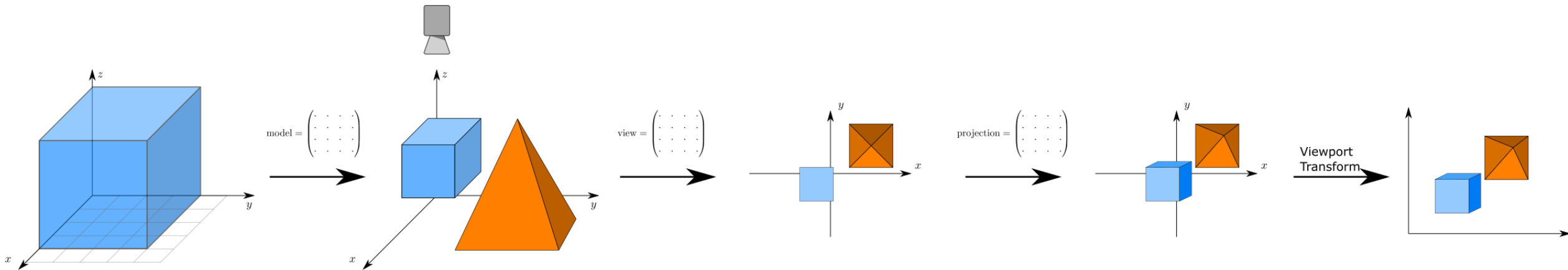
Computer Graphics

– Coordinate Systems (Questions)

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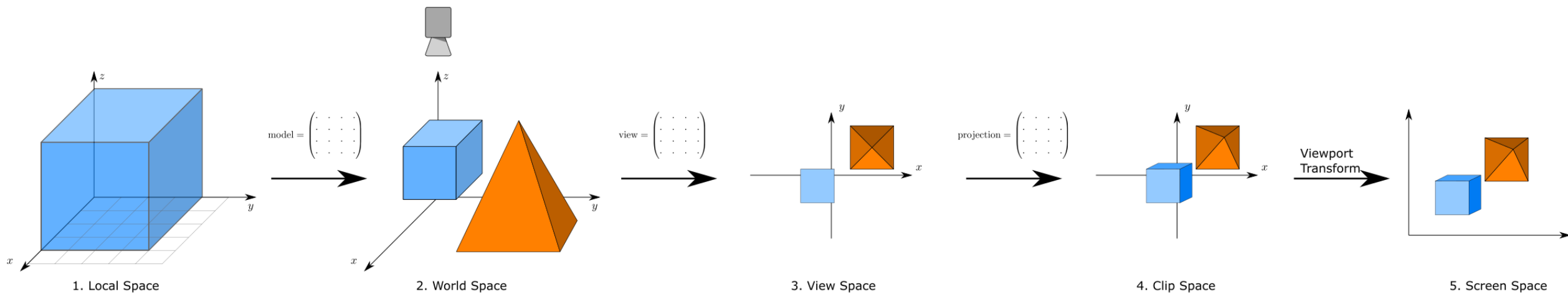
Possible Questions

Name the spaces:



Possible Questions

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Possible Questions

What is the view space?

Possible Questions

What is the view space?

- View space is usually referred to as the camera of OpenGL (alias camera space/eye space)
- View space is the result of transforming world-space coordinates to coordinates that are seen from the camera's point of view
- Accomplished with a combination of translations and rotations that certain items are in front of the camera (view matrix)

Possible Questions

Name two projections.

Possible Questions

Name two projection.

Orthographic Projection

Perspective Projection

Possible Questions

Complete the orthographic projection matrix:

$$proj = \begin{pmatrix} \boxed{} & 0 & 0 & -\frac{right+left}{right-left} \\ 0 & \boxed{} & 0 & -\frac{top+bottom}{top-bottom} \\ 0 & 0 & \frac{-2}{far-near} & -\frac{far+near}{far-near} \\ 0 & 0 & 0 & 1 \end{pmatrix}$$

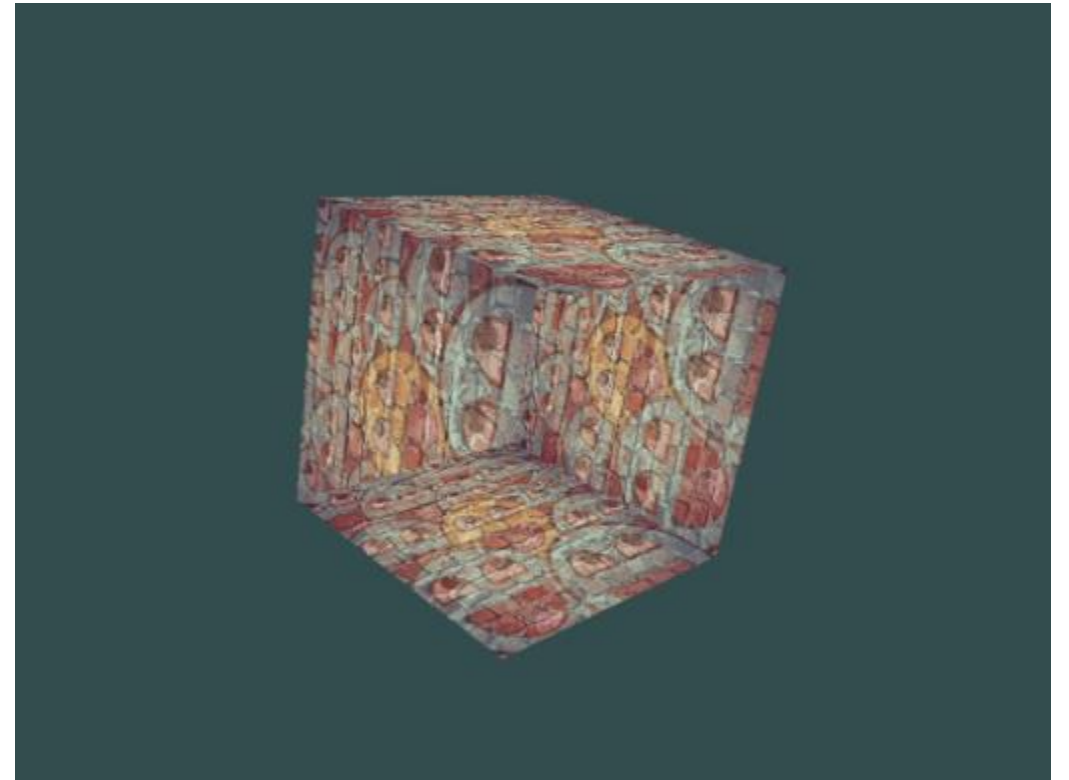
Possible Questions

Complete the orthographic projection matrix:

$$proj = \begin{pmatrix} \frac{2}{right-left} & 0 & 0 & -\frac{right+left}{right-left} \\ 0 & \frac{2}{top-bottom} & 0 & -\frac{top+bottom}{top-bottom} \\ 0 & 0 & \frac{-2}{far-near} & -\frac{far+near}{far-near} \\ 0 & 0 & 0 & 1 \end{pmatrix}$$

Possible Questions

What is wrong with this cube?



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What is wrong with this cube?

Forgot to activate the depth test:

```
glEnable(GL_DEPTH_TEST);
```

