CS480: Computer Graphics
PA2: Rasterization

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Course URL:
http://jupiter.kaist.ac.kr/~sungeui/CG/

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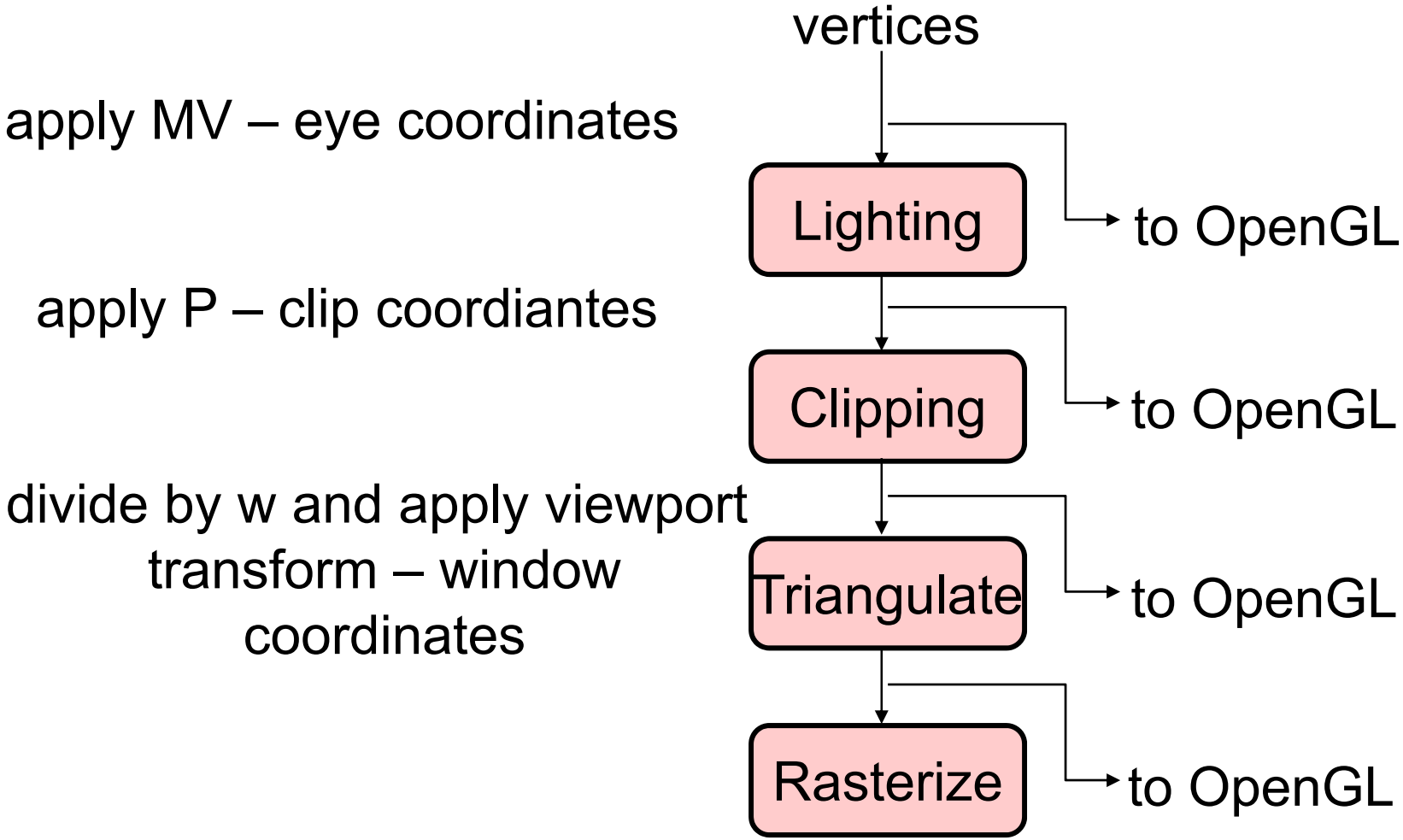
PA2 – Rendering Pipeline

- **GLRenderer**
  - **Captures state needed for rendering**
  - **Provides a frame buffer in memory for rasterization**
  - **Calls virtual function for each stage of the pipeline**
  - **Uses preprocessor macros to reroute GL calls to your GLRenderer subclass**

```
#define glColor3f( r, g, b ) \
  theGLRenderer->Color4f( r,g,b,1 )
```

- **MyGL**
  - **Subclass of GLRenderer**
  - **Provides stubs for each stage of the pipeline**
  - **Can disable stages to simplify debugging**

HW2 – Rendering Pipeline



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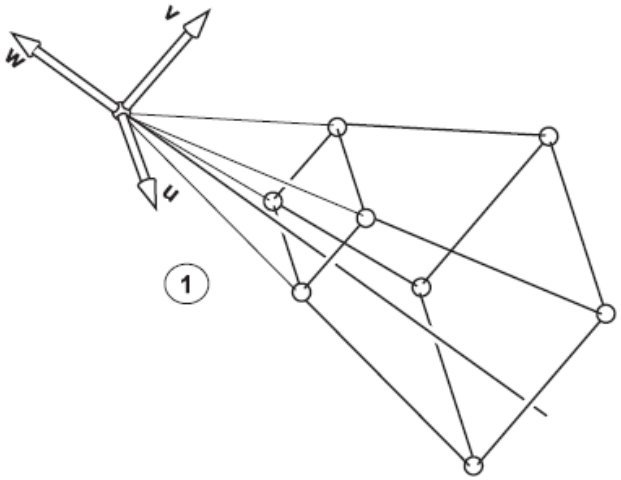
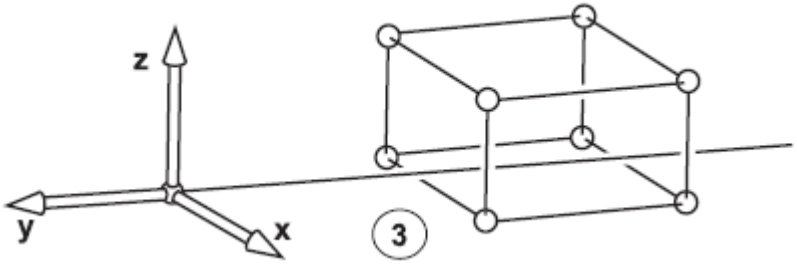
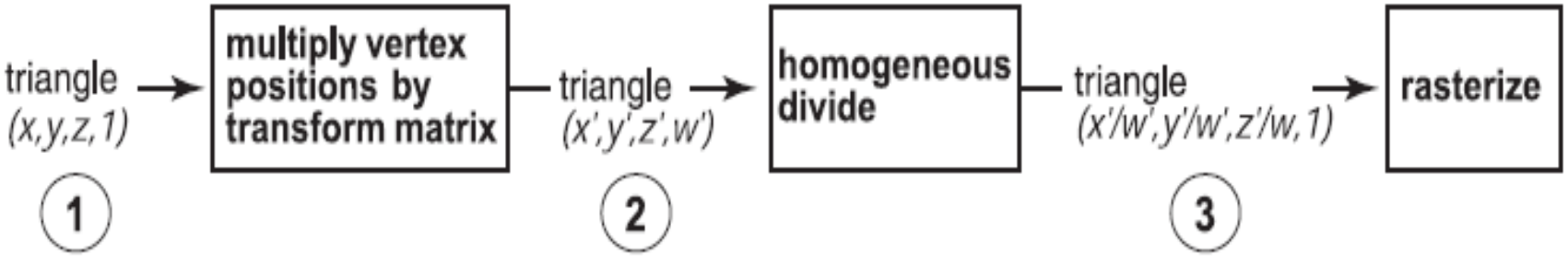
Clipping in the Pipeline







Clip space

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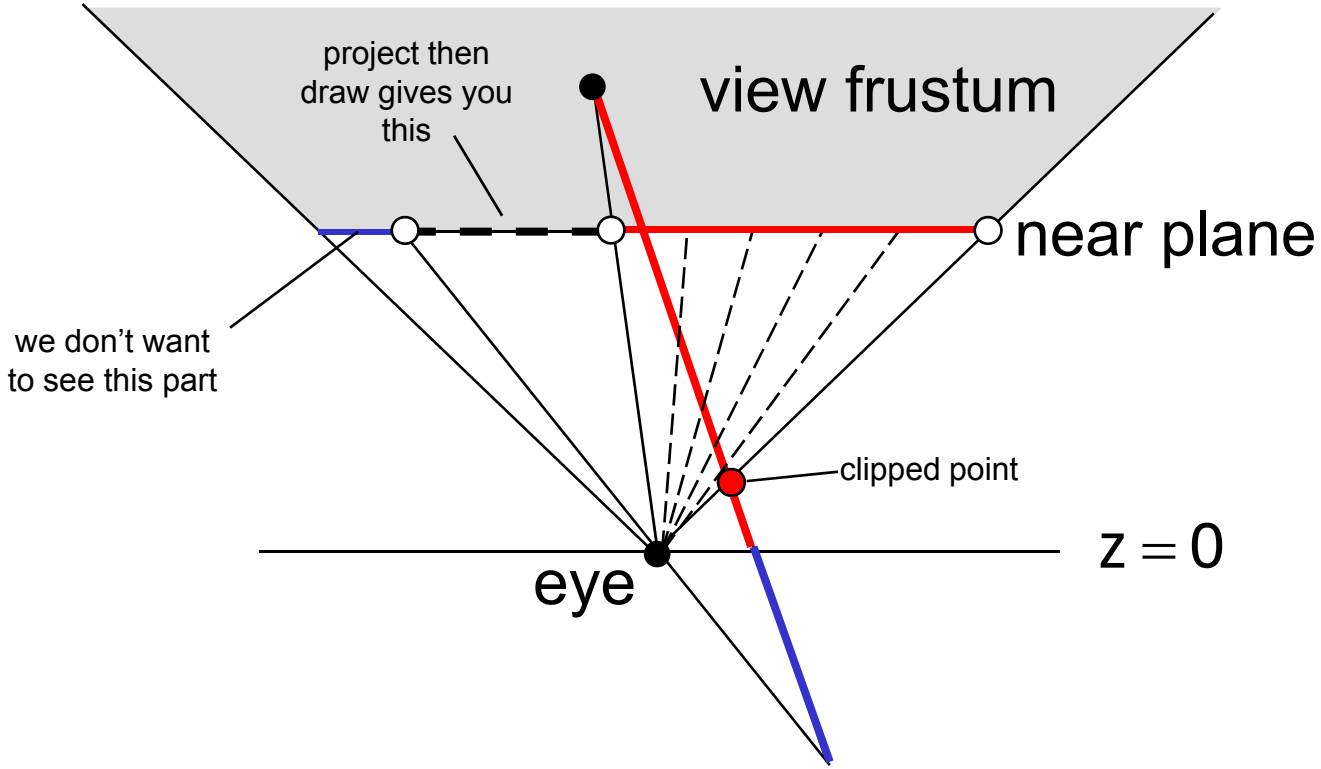
View Frustum Clipping in Option 3

- **Points in projective space need to be clipped <u>before</u> projection**
- **Primitives that straddle the z=0 plane "flip" around infinity when projected**



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