

CSC 240

Computer Graphics

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Fall 2016
Smith College

Outline: 10/19

For midterm: one double-sided
“cheat sheet”

- Lab 5
 - Homework 4 demos
 - Start: 3D
- **HW 5**: due Monday Oct 24
 - **Monday**: midterm review
 - **Wednesday**: special topic

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- Class on Monday: review session with more problems
- Make sure you understand **ALL** labs and homeworks, try them again, don't just look at the solution
- Go over all slides and board photos and make sure they make sense, create your cheat sheet as you go

Homework 4 Demos

3D graphics

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3D graphics

- Just add a z? $p=(x,y)$, now $p=(x,y,z)$?
- But we still need to view in 2D!
- Want: $p=(x,y,z)$ in the “world coordinates” to be transformed into a 2D $p'=(x',y')$

Coordinate Systems

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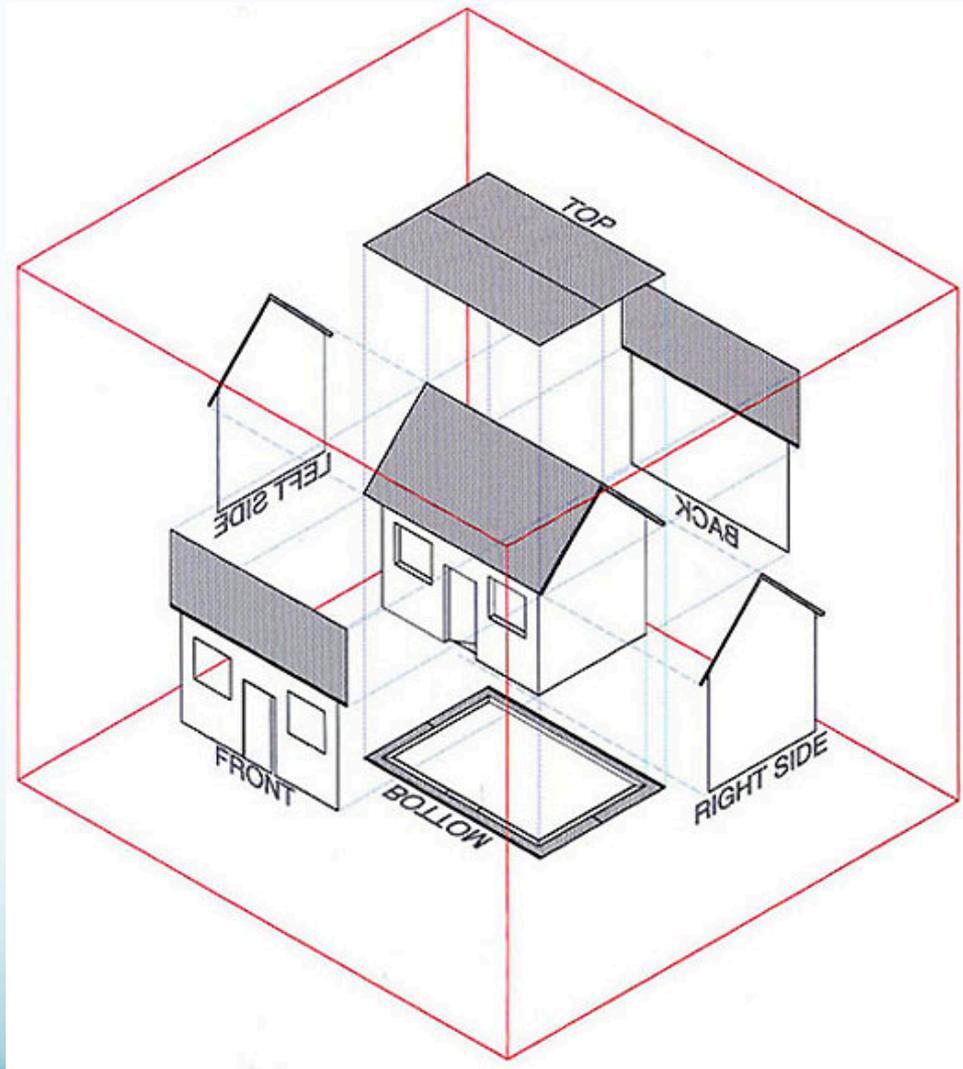
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Coordinate Systems

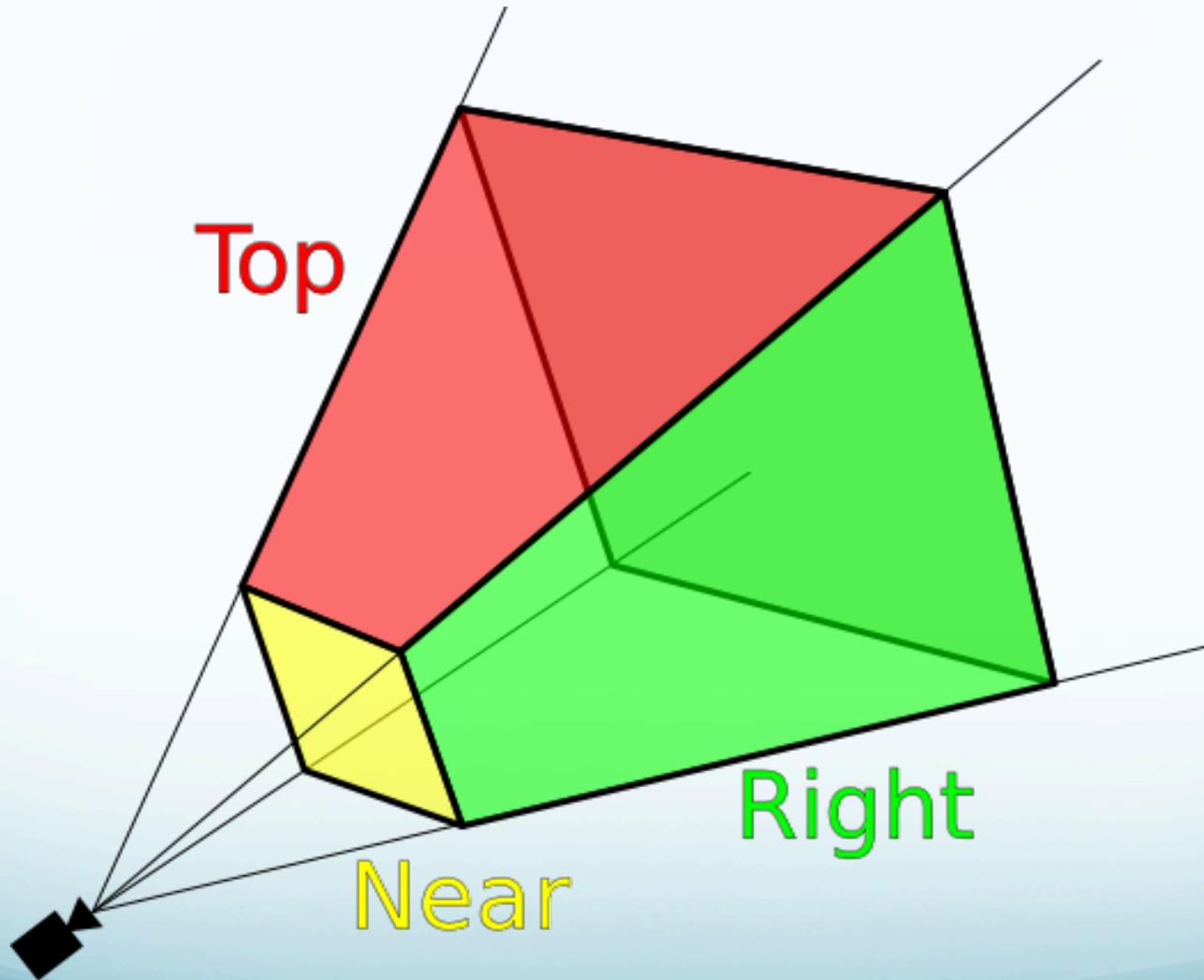
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- **Model or object coordinates:** with respect to each object (choose origin to be the center of each object)

Projection

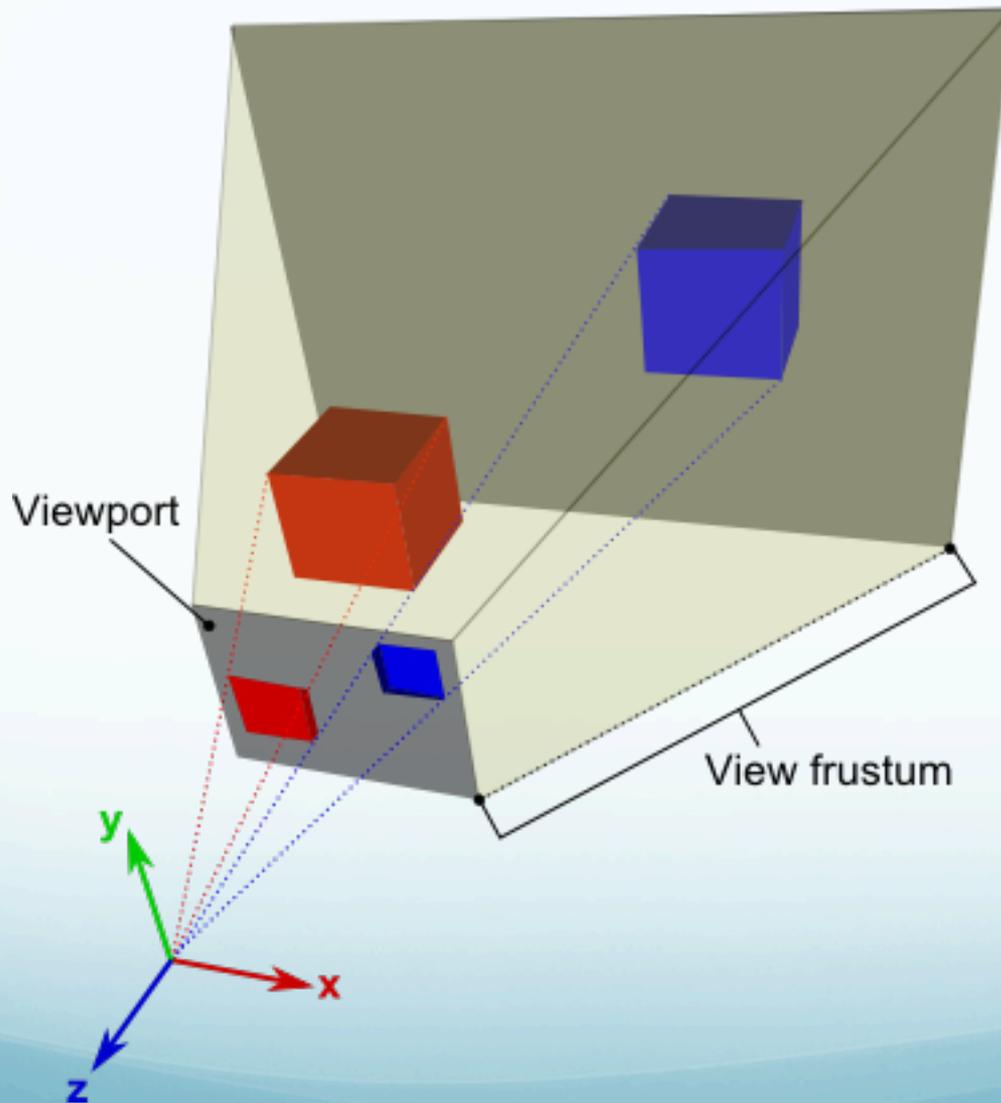
Orthographic Projection



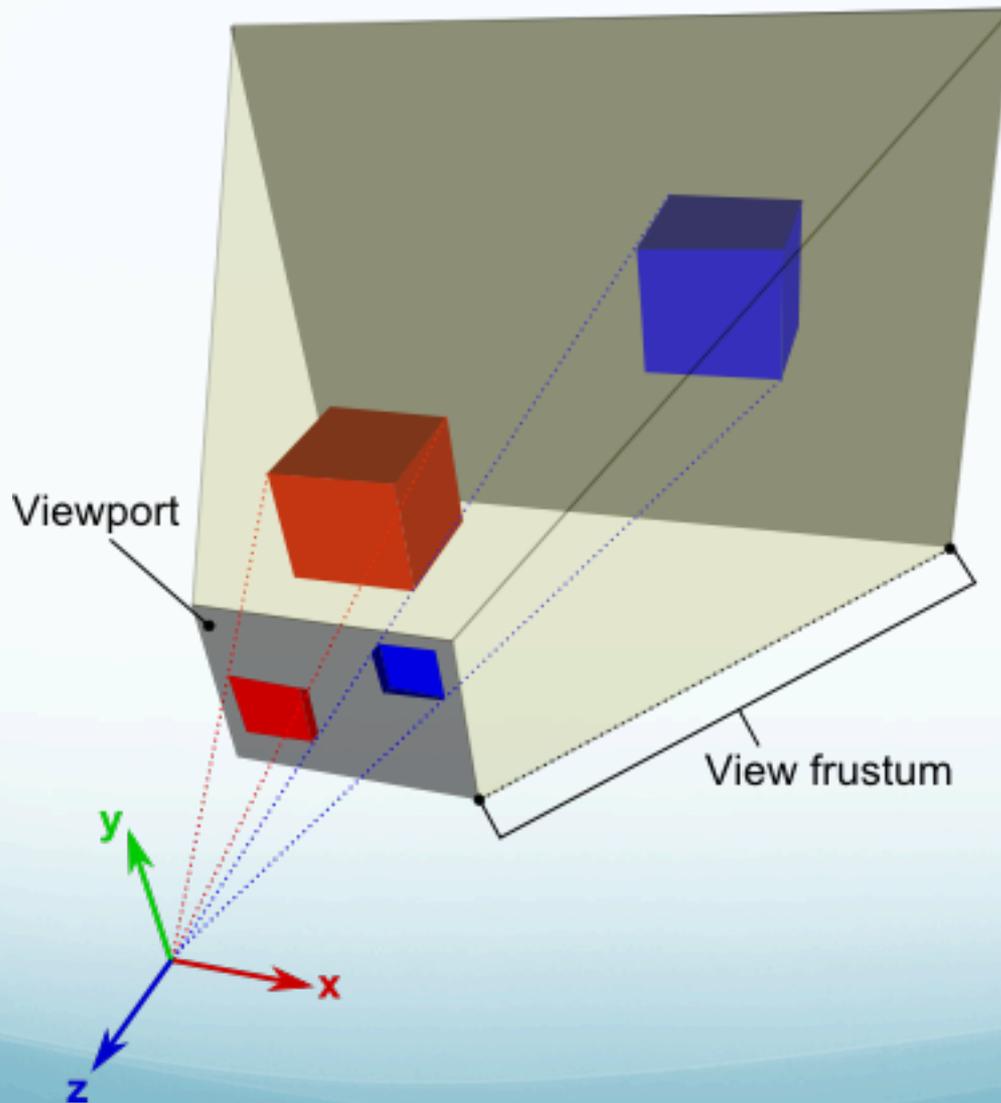
Perspective Projection: Frustum



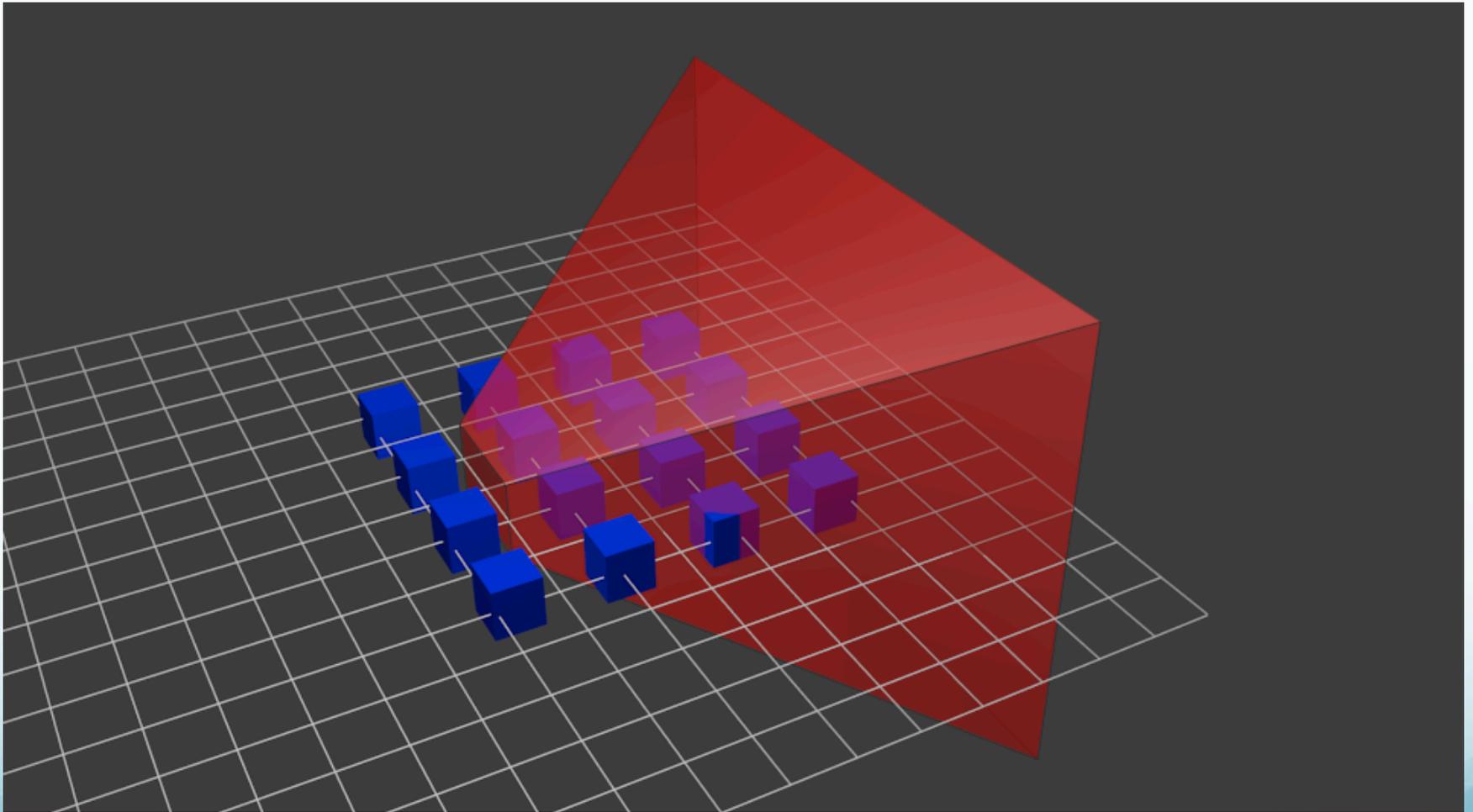
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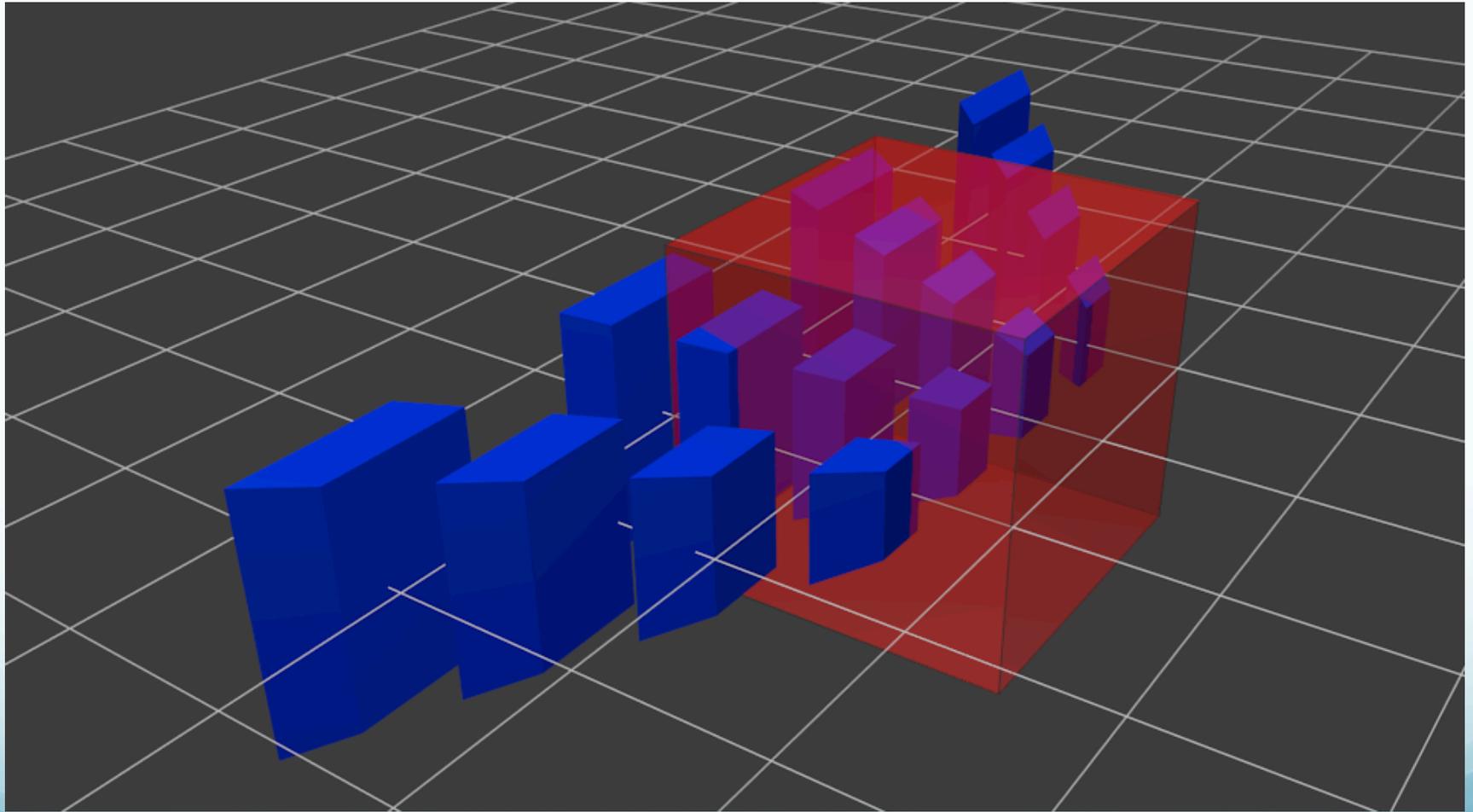
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