

Computer Graphics

Tutorial week 3

Today

- Your presentations
- OpenGL: lights
- Raytracer: illumination, z-buffer and super-sampling

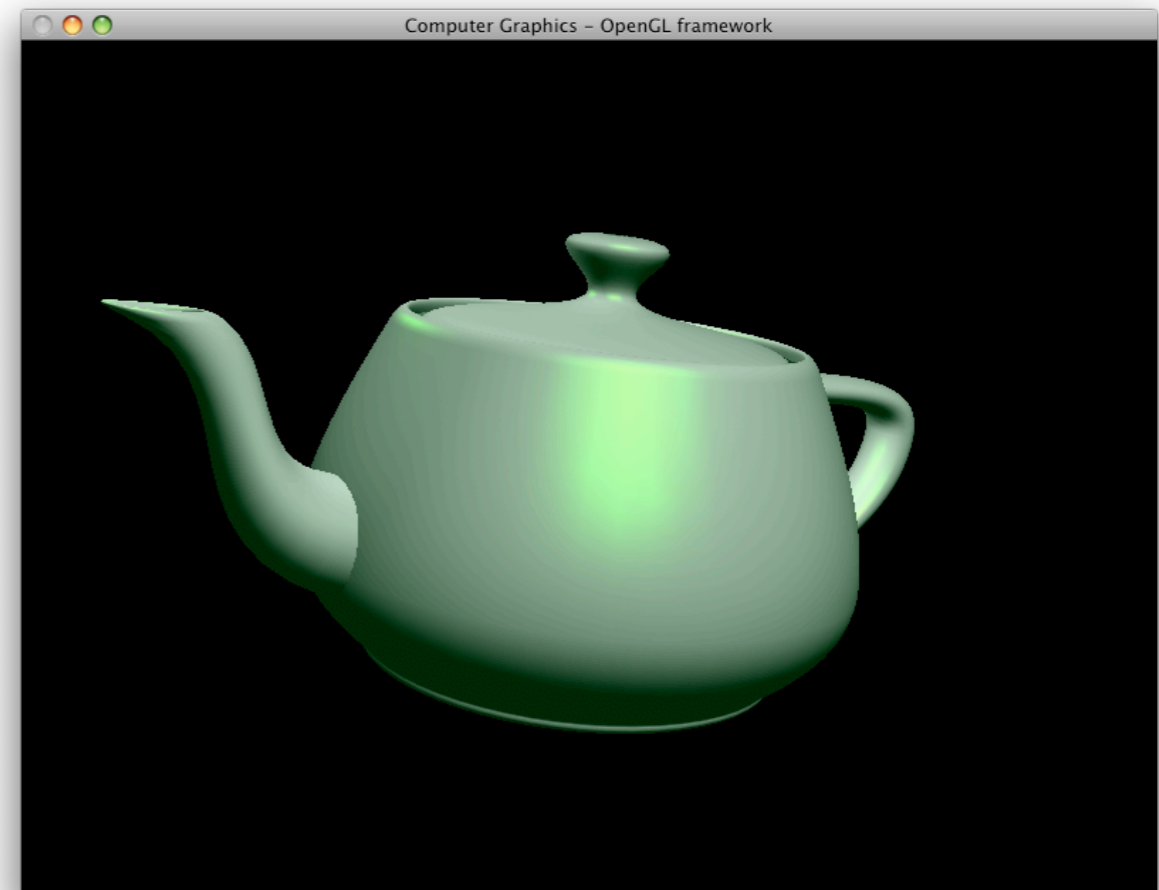
Sending in your work

- Check how to send in on the “Assignments” page
 - One archive
 - Name of archive should contain your names and the weeknumber
- Nestor Digital Dropbox alternative?

Your presentations

Lights in OpenGL

- Add two lights to the scene: one stationary and one that moves with the view



Lights in OpenGL: tips

- Read/browse chapter 5 of OpenGL red book
- Use an object that has normals (e.g., glut's sphere or teapot)
- Play with OpenGL demo by Nate Robins

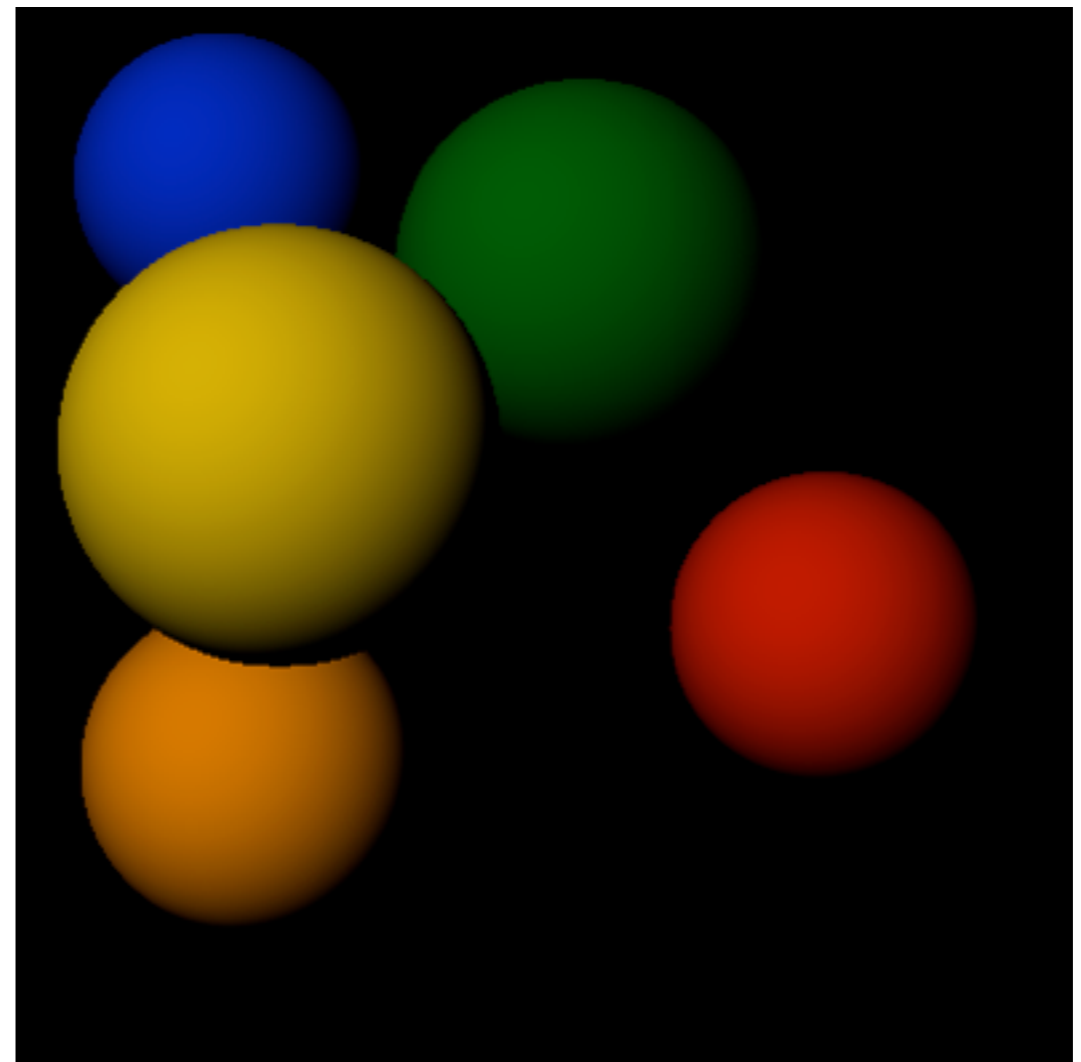
Raytracer: illumination

- Phong illumination model
- Add ambient, diffuse, and specular components
- See also: lecture slides



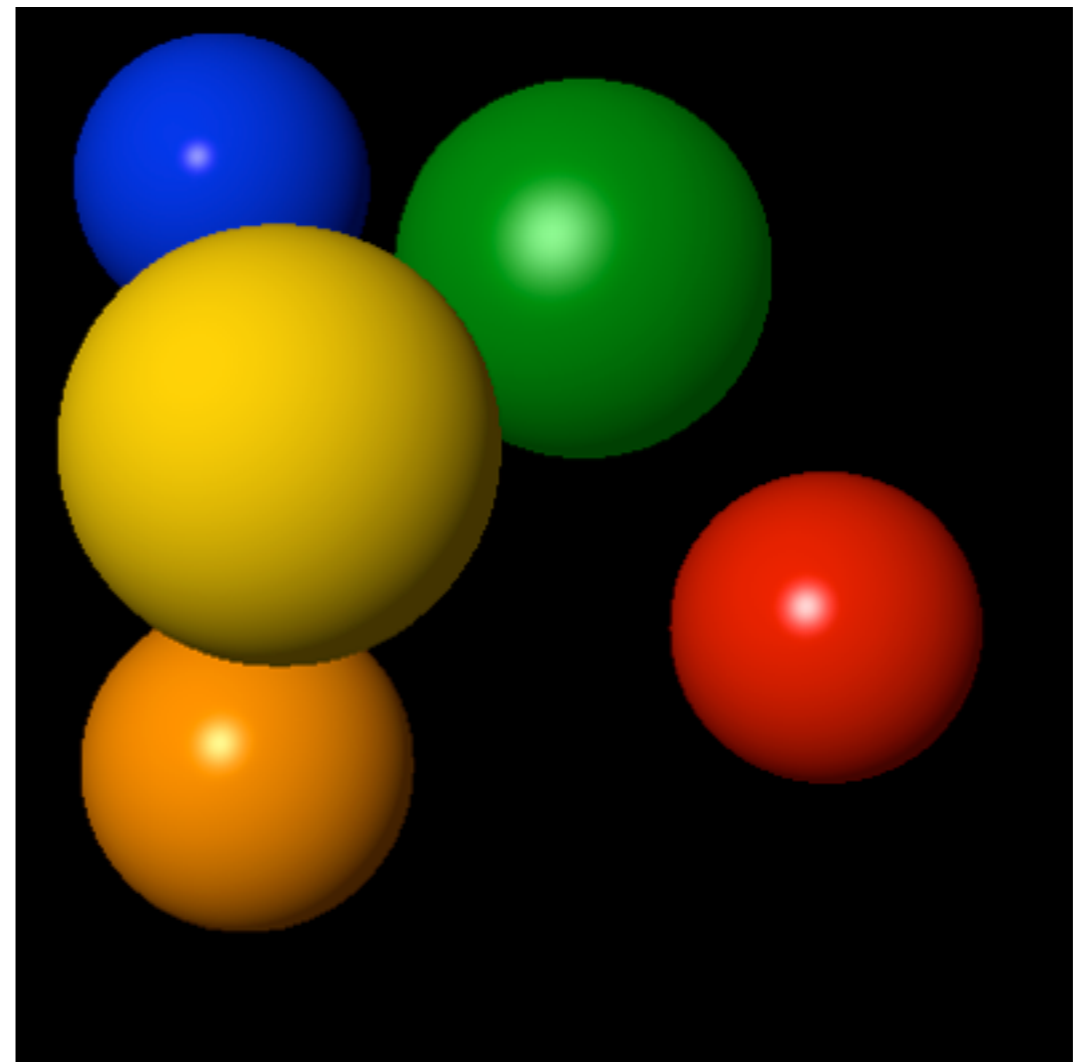
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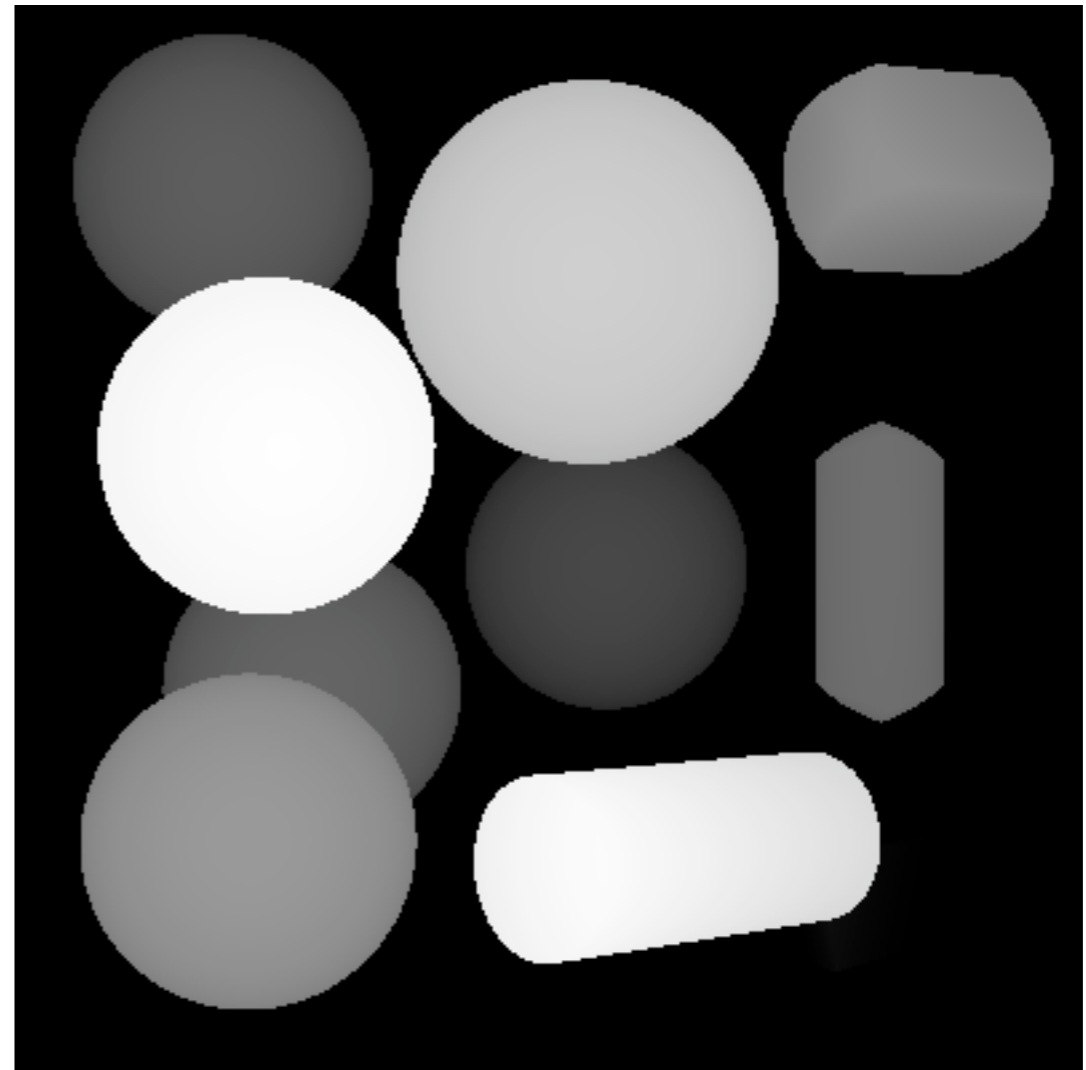
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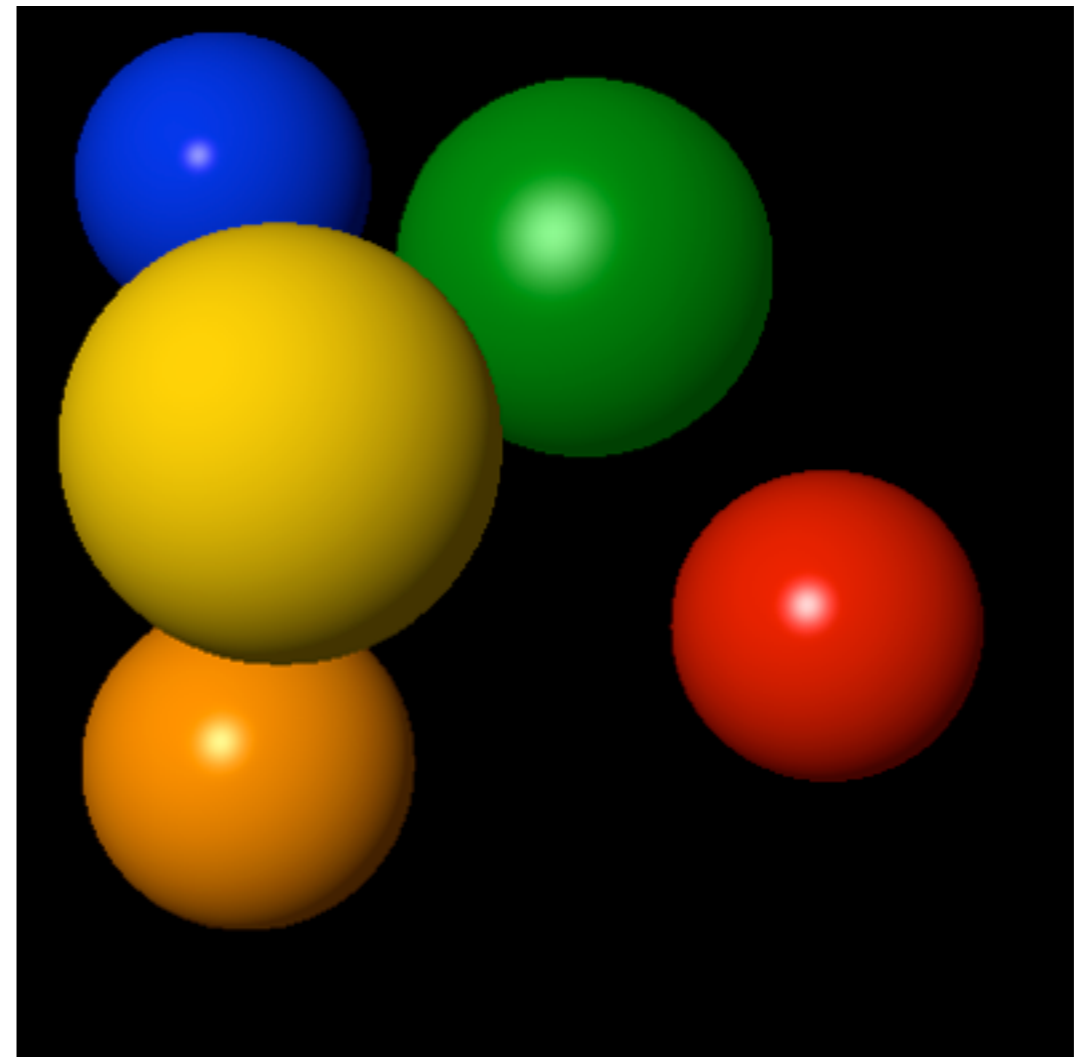
Raytracer: z-buffer

- Create z-buffer image
- Gray-scale to encode depth



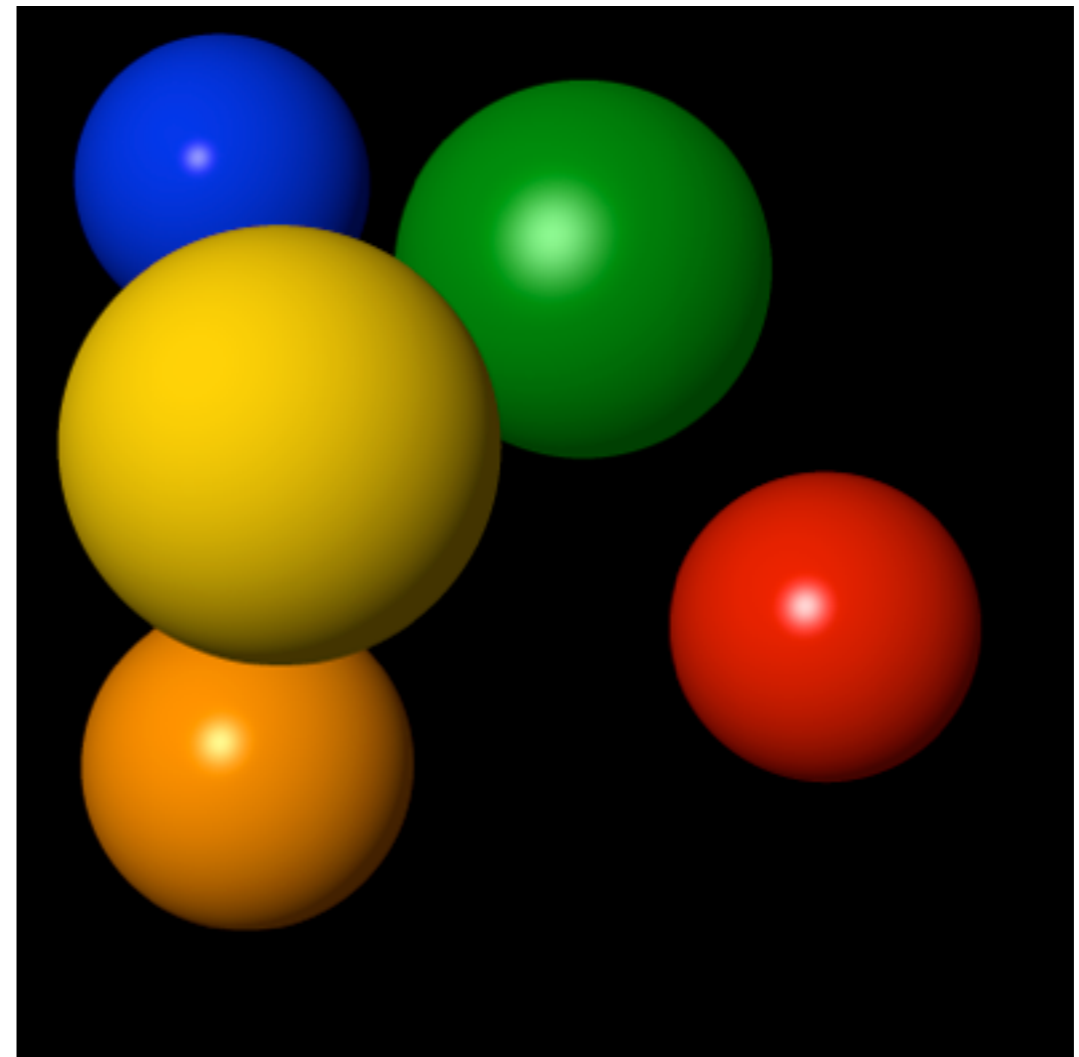
Raytracer: super-sampling

- Super-sampling for prettier images
- Make super-sampling configurable



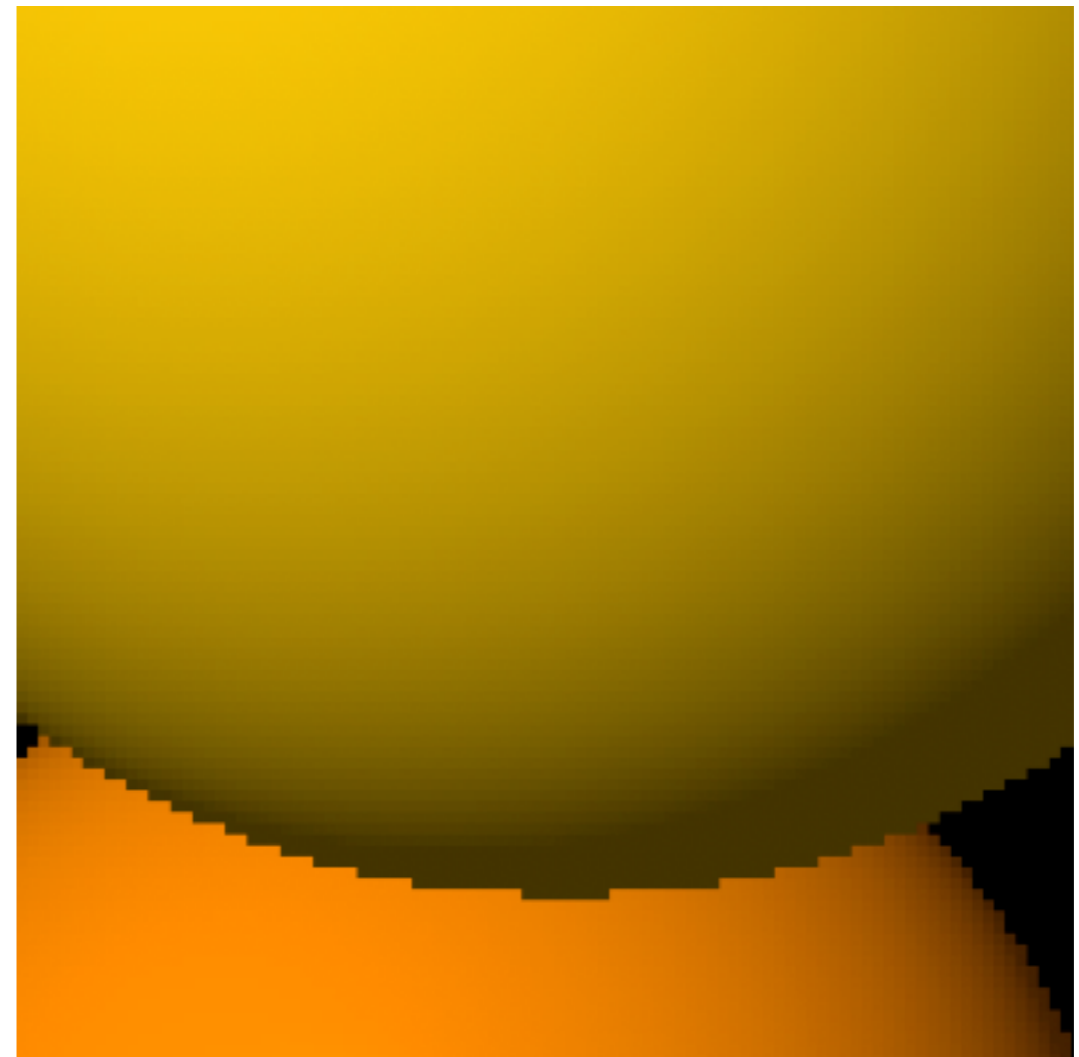
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